Art, Science and Politics in the Service of Public Health

■

Digitized by the Internet Archive
in 2011 with funding from
CARLI: Consortium of Academic and Research Libraries in Illinois

http://www.archive.org/details/caduceusmuse621990unse

Art, Science and Politics in the Service of Public Health

CADUCEUS
a museum journal for the health sciences

Volume VI ■ Number 2 ■ Summer 1990
Published by the
Department of Medical Humanities

Board of Editors
Glen W. Davidson, *Editor*
Linda Keldermans, *Publications Editor*

Staff
Barbara Mason, *Curator, The Pearson Museum*
M. Lynne Cleverdon, *Business Manager*

Caduceus is published three times a year by the Department of Medical Humanities, Southern Illinois University School of Medicine. *Caduceus* is cited in *Index Medicus* and in Medline, the principal online bibliographic citation base of the National Library of Medicine. (Printed on acid-free paper, effective with Volume V, No. 1.)

Subscription Rates
The subscription rates per year for *Caduceus* are as follows: $34.00 for one year individual (3 issues) and $61.50 for two years (6 issues). International subscribers should add $2.50 to regular subscription prices to cover postage and handling. A single copy of *Caduceus* is $20.00.

All subscription communications should be addressed to the
Department of Medical Humanities
Southern Illinois University
School of Medicine
P.O. Box 19230
Springfield, Illinois 62794-9230
Phone (217)782-4261

Copyright 1990 The Board of Trustees
Southern Illinois University
ISSN No. 0882-7447

Board of Advisors

James Connor
Medical Museum
University of Western Ontario
London, Ontario NGA 5A5

M. Patricia Donahue
College of Nursing
University of Iowa
Iowa City, IA 52242

James Edmonson
Howard Dittrick Museum of Historical Medicine
Cleveland Health Sciences Library
Cleveland, OH 44106

Michael Harris
National Museum of American History
14th Street & Constitution Ave., N.W.
Washington, DC 20560

Christopher Hoolihan
Edward G. Miner Library
University of Rochester
Rochester, NY 14642

Joel Howell
Department of Internal Medicine
University of Michigan
Ann Arbor, MI 48109

Adrianne Nöe
Armed Forces Medical Museum
Armed Forces Institute of Pathology
Washington, D.C. 20306

Gretchen Worden
Mütter Museum
College of Physicians of Philadelphia
Philadelphia, PA 19103

Contents

■ **FEATURE**

1 Art in the Service of Public Health: The Illustrated Poster
by William H. Helfand

■ **REVIEW**

38 The Poster Collection at the National Library of Medicine
by Lucinda H. Keister

■ **INSIGHT**

43 Evolution of Federal Dietary Guidance Policy: From Food Adequacy to Chronic Disease Prevention
by Marion Nestle and Donna V. Porter

■ **ANNOUNCEMENTS**

68 Exhibits and Conferences

4. Waltham Hospital Fair.

A poster by the American artist C.W. Reed designed to raise funds for a hospital in 1896. (Courtesy of The William H. Helfand Collection.)

Art in the Service of Public Health: The Illustrated Poster

The first illustrated posters appeared during the 1840s, when technological advances in the use of large-scale printing machinery permitted the publication of lithographs in more than a single color. Demand originally came from two sources: the manufacturers and marketers of commercial products, beer, books, shirts, corsets and proprietary medicines; and from promoters of the circus, popular entertainments and travel to distant lands. Although medical subjects were included in early designs, their exclusive purpose was to publicize products. While a few earlier posters were published to raise funds for hospitals or victims of cholera and other epidemics in the nineteenth century, the first public health posters did not appear until World War I.

Precedents did exist, however. Broadsides, among the earliest examples of commercial printing, often focused on health matters and were used by local officials to warn the populace of impending epidemics or to institute corrective or protective sanitary measures. These broadsides were not illustrated. A seventeenth-century plague sign from Ehrfurt, Germany--two crosses, each with the word *Pest*, proclaiming the presence of plague in the house on which it was to be displayed--is one of the earliest surviving quarantine signs. (Check List No. 1) In 1866, broadsides in Limehouse, England, stressed that residents were "earnestly advised not to drink any water which has not previously been boiled."[1] Likewise, Italian authorities posted warnings for

La Journée de Pasteur
AU PROFIT DES LABORATOIRES FRANÇAIS
PASTEUR
DIMANCHE 27 MAI
Français, Françaises, achetez, achetez ces insignes, œuvres de nos grands artistes, pour favoriser l'essor de la science nationale et assurer la sécurité du Pays

5. La Journée de Pasteur.

To help in a fund-raising campaign for the Institut Pasteur in 1923, Henri Rapin published a poster including illustrations of Pasteur designed by contemporary artists. (Courtesy of National Library of Medicine Collection.)

by William H. Helfand

recurrent epidemics in the seventeenth and eighteenth centuries. Quarantine notices for diphtheria, whooping cough, measles, mumps and polio were common in towns and villages until forty or fifty years ago; today they have become sought after treasures by ephemera collectors.

Early Examples

Although few in number, there are examples of illustrated posters on health issues before World War I. The Spanish artist Ramon Casas designed a poster claiming to cure syphilis for the Sanatario para Sifiliticos, a private hospital, in 1900. (See cover and Check List No. 2) Instead of illustrating the debilitating effects of the disease as a warning, Casas drew a beautiful woman holding a flower in her hand, thereby hinting at positive results of a stay at the sanitarium. A snake, symbol of disease, crawling up the woman's back, was the sole indication of the sanitarium's purpose. Earlier posters also were commissioned to announce hospital or charitable fund-raising campaigns. For example, posters familiarizing the public with the plight of cholera victims frequently emphasized the devastating effects of the disease on women and children. The Fête Parisienne was held in the Jardin des Tuilleries in 1902 to raise money for those who had been affected by epidemics of cholera. The poster presenting details on the event showed a mother holding her dead child, with an angel in the background ready to receive the

6. Soldat. La Patrie Compte sur Toi ....

To warn against infection, this 1916 poster by Théophile-Alexandre Steinlen contrasts the image of a healthy soldier at the top with another who sits forlorn in a hospital as a result of his indiscretions. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

body. (Check List No. 3) As if the tragedy depicted by the artist were not enough, there was a second grief-stricken woman in the background as well.

Not all such fund-raising announcements were so morbid. A delightful American poster by C.W. Reed, announcing the "Waltham Hospital Fair" in 1896, had a benevolent angel reaching down to look after young patients (See frontispiece and Check List No. 4.)

Posters were, and are, routinely commissioned to communicate pertinent details of fund-raising events. A good example is French artist Henri Rapin's detailed lithograph of a day of celebration to benefit the Institut Pasteur in Paris in 1923, marking the centenary of the birth of Louis Pasteur. (See p. 1 and Check List No. 5.) Contributors purchased lapel badges

to wear on jackets or shirts; each small vignette had been commissioned from a well-known artist, and the poster included drawings by Georges Barbier, Jean Béraud, Albert Besnard, Maurice Denis, Abel Faivre and Poulbot. These badges, too, have become prime examples of medical ephemera. Rapin's poster proclaimed the most exalted faith in medicine, calling the institute's laboratories temples of the future, and bathing Pasteur in an unrestrained religious glow, in stained glass, with angels and halos present in several of the designs.[2]

Venereal Diseases

By the turn of the century, the value of posters in creating demand had been well established. When hostilities began in Europe in 1914, authorities on both sides of the conflict employed posters among other means of communication to accomplish multiple purposes. At first the drive was for men and money, and in Great Britain and the United States, where there was no compulsory military service, for conscription. Patriotism also beckoned in later posters urging citizens to aid fighting men by sacrificing comforts to ease demands on the troops. Next came requests for help, such as the need for blood donations for wounded soldiers, orphans and refugees. Finally, there were appeals to support the overwhelming efforts which ultimately ended the conflict.[3]

Concern for public health was prominent in posters in the latter years of the war. Military authorities, following the example set by Napoleon, took it as given that their armies marched on their stomachs, but also concluded that soldiers had to be in good health to travel at all. Historians can point to numerous crucial battles and campaigns in which deaths from disease far outnumbered those from firearms. For example, in Hernando Cortes's sixteenth-century conquest of Mexico, smallpox devastated the ranks of the Indians. In Napoleon's 1799 expedition to Egypt, there was greater worry over the plague epidemic that had hospitalized fighting men at Jaffa than concern for the advancing Turks.[4]

7. L'Hecatombe. La Syphilis.

A striking poster by Belgian artist Louis Raemakers, showing a woman, the image of syphilis, holding a skull in her hands among rows of graves. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

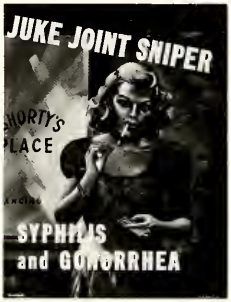
In view of such experience, military leaders have been required to consider potential ravages of disease in planning their battle strategy. During the major wars of the twentieth century, responsible agencies have made serious efforts to instill a concern for health in the minds of their soldiers, sailors and marines. Venereal diseases have been the major targets. In the charged atmosphere of war, syphilis and gonorrhea threaten military efficiency as well as personal health. In addition, the intertwining of moral with medical issues-- a combination that is nearly impossible to separate when sexually transmitted disease is the subject--suggests to many observers that infected soldiers also symbolize moral failure and social decay.[5]

As the conflict in Europe escalated in 1914, propaganda campaigns were mounted by both sides with films, lectures, pamphlets, demonstrations and other media marshalled to create necessary awareness. Not surprisingly, posters were among the heaviest artillery in these propaganda campaigns. By their very nature, posters were ideally suited for this purpose. Patriotism, along with fear, was the chief theme used by artists in creating the earliest poster images that would be exhibited to both servicemen and the general public. One of the more dramatic of these early examples was published in France in 1916 by Théophile-Alexandre Steinlen. (See p. 2 and Check List No. 6.) Neither the words *syphilis* nor *gonorrhea* are mentioned, their use being too explicit for the sensibilities of the general public at the time. However, the illustrations of the woman embracing and the physically debilitated soldier on his hospital bed leave no doubt as to the message. On a tombstone in the center is the direct patriotic appeal:

> Soldier, the country counts
> on you--
> Keep healthy. Resist the
> temptations
> of the street where a sickness
> as
> dangerous as the war awaits
> you....
> It carries its victims to decay
> and
> to death, without honor, without happiness....

Steinlen's poster incorporates two recurring images frequently found in campaigns against venereal disease. The first image is of the woman, invariably presented as the cause of the problem, and the soldier or sailor is admonished to be continually on his guard against the evils she represents. Woman personified continued as a main target during World War II as well, but has not surfaced widely in contemporary AIDS campaigns. The second image is of death. At the bottom of the Steinlen poster is a skull with crossbones, a powerful and fearful symbol.

Louis Raemakers, the Belgian artist whose political caricatures condemned German atrocities in World War I, used the skull in his poster, "L'Hecatombe," or the sacrifice of



11. Juke Joint Sniper.

Warnings against associating with loose women were common themes in American World War II anti-venereal disease posters. (Courtesy of National Library of Medicine Collection.)

many victims. (See p. 3 and Check List No. 7) In this poignant warning Raemakers illustrated a pale woman with spider-like hair wearing a black cloak and holding a skull in a position that seems to equate death with sex. The starkness of Raemakers's image fully captures the menace of the dread disease, and crosses in the field add impact. "L'Hecatombe" is one of the most powerful and striking posters ever made. A French poster by Theodoro, "La Syphilis est un Fléau Social, Ses Victimes sont Innombrables" (Syphilis is a Social Plague, its Victims are Beyond Counting) was only slightly less dramatic in its illustration of a couple kissing before a grinning skull. (Check List No. 8) Lucien-Achille Mauzan, a prolific artist who was an active poster designer in France, Italy, Spain and Argentina, placed two death-like figures behind a bride and groom, thereby making use of the same imagery to create a frightening image of venereal disease intruding on an otherwise happy occasion. (Check List No. 9)

As a serviceable symbol to arouse fear, the skull was carried over to venereal disease warnings to servicemen in World War II. "Hello Boy Friend, Coming MY Way?," a poster by British artist Reginald Mount, was but one example, continuing a tradition that had apparently been effective. (Check List No. 10) The text in Mount's poster again blamed the woman for creating the problem in the first place, warning that the "easy girl-friend spreads syphilis and gonorrhea, which unless properly treated may result in blindness, insanity, paralysis, premature death." Attractive women certainly could be counted on to successfully attract a soldier's or sailor's attention, and posters by Charles Casa and others took advantage of this appeal in showing prostitutes lighting cigarettes in front of a bar or leaning against a wall. These "Juke Joint Snipers" were identified specifically as potential sources of syphilis and gonorrhea. (See p. 4 and Check List Nos. 11-12.) Even the perfect "girl-next-door" could not be trusted; she served as a warning to all servicemen in "She May Look Clean, But," which contained the warning that "pick-ups, good-time girls and prostitutes" could be carriers of infection. (Right, and Check List No. 13.) Perhaps the theme of women personifying disease reached its high (or low) point in an extensive campaign directed at U.S. servicemen during the 1940s, with the recurrent headline "Dames and rum don't mix!"

Patriotism, fear and an advised wariness of women were not the only themes used in the hundreds of posters employed in venereal disease campaigns, particularly by the Americans, during World War II. Frequently, posters had no concept behind them other than the repetition of simple warnings on the harsh consequences of venereal disease. These warnings were as uncomplicated and as direct as they could be, their messages often at levels that could be comprehended by relative illiterates. One of the most elementary examples was a poster distributed by the U.S. Navy,

13. She May Look Clean, But.

Warnings to servicemen did not exempt the girl-next-door. Avoiding contact with women was the major message in anti-venereal disease campaigns in World War II. (Courtesy of National Library of Medicine Collection.)

showing simply a pair of dice labeled with a "V" and a "D" with the legend, "Don't Gamble." (Check List No. 14) Another American example by Robert Bode presented three bands, on which were the acronyms "VE, VJ and VD," each band with a smiling or a frowning face. (Check List No. 15) There was also a poster showing Uncle Sam's leg, easily identified by its striped trousers, ready to step on the letters "V D." The superfluous caption read "Stamp out Venereal Diseases." (See p. 39 and Check List No. 16.)

American posters of this period also presented illustrations of servicemen themselves. Two used by the Navy were typical: in one a remorseful sailor looks off into space as he illustrates the message that "VD Can Be Cured But There's No Medicine for Regret;" and in another, a sailor wearing a dunce cap writes repeatedly on the blackboard, "I Should Have Gone to the Pro Station."[6] (Check List Nos. 17-18) Often an object of ridicule, the dunce, with his ubiquitous cap, appeared frequently, as artists used humor to make their points. Examples present caricatures of a befuddled sailor in front of a pro station, asking what it is he is supposed to remember, or being asked whether he is taking VD home with him in his packed duffle-bag. (Check List Nos. 19-20) Nor did poster artists neglect the GI's favorite reading, comic strips. Large-sized versions of the most familiar characters in the comics were used to repeat messages to avoid women, or if this were not possible, to encourage quick visits to the pro station. (Check List Nos. 21-22)

RÉPUBLIQUE FRANÇAISE
MINISTÈRE DE LA SANTÉ PUBLIQUE
OFFICE NATIONAL D'HYGIÈNE SOCIALE
LE SYPHILITIQUE BIEN SOIGNÉ GUÉRIT
IL PEUT CRÉER UNE FAMILLE AVOIR DES ENFANTS SAINS
ÊTRE UN HOMME COMME LES AUTRES CAR
LA SYPHILIS
EST CURABLE
NE VOUS EXPOSEZ PAS À LA CONTA
POUR NE PAS CONTAMINER VOS PROCHES POUR QUE VOS BÉBÉS NE SOIENT PAS
DES DÉSESPÉRÉS POUR QUE VOUS NE DISQUIEZ PAS DE DEVENIR TÔT OU TARD
NOUS VOUS SOIGNERONS PAR VOTRE MÉDECIN OU AUX DISPENSAIRES ANTIVÉNÉRIENS
DEMANDEZ-EN LA LISTE AU MINISTÈRE DE LA SANTÉ PUBLIQUE

31. La Syphilis Est Curable.

Leo Fontan's 1930s poster emphasizes that syphilis can be cured with proper medical attention. The lengthy text surrounding the illustrations contributes to the overall design. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

Venereal disease also was portrayed as an evil equal to the Axis powers-- Germany, Italy, and Japan themselves--a theme used twice in posters designed in 1942 by popular illustrator Arthur Szyk. (Check List Nos. 23-24) (As an aside, it is noteworthy that similar warnings were used for other diseases. For example, the linking of Japanese soldiers with malaria as the common enemy-- suggesting that protection was necessary against both--was a natural idea for war-time propagandists. In an American poster published in 1943 for use in the Far East, soldiers were admonished to "Fight the Peril Behind the Lines. Between sundown and sunrise the malaria mosquito is more deadly

than the enemy.") (Check List No. 25) The fact that the military enemy might even be a lesser evil in anti-venereal disease campaigns was echoed in a World War II poster that carried the caption, "A German Bullet is Cleaner than a Whore."[7]

If fear, patriotism, wariness, or humor could not deter servicemen from the dangers of imprudence, a major effort also was made to have potential victims seek later help. Soldiers were warned repeatedly that unauthorized treatment was unreliable, one poster suggesting that "No Home Remedy or Quack Ever Cured Syphilis or Gonorrhea." (Check List No. 26) At the same time, however, the availability of sulfonamides in the late 1930s and of penicillin around 1943 provided cures, especially for gonorrhea. Posters stressed the necessity to seek prompt and proper care. (Check List No. 27)

While warnings to servicemen were among the most important public health objectives in World War II, propaganda accentuating the evils of venereal disease also was directed to the public which, of course, has been equally victimized by syphilis and other venereal diseases. Posters for the public stressed similar themes, warning against exposure and insisting on proper prophylaxis. (Check List Nos. 28-29) In the years since the war, the U.S. Public Health Service and its counterparts in other countries have continued their public appeals, emphasizing the importance of blood tests to diagnose venereal disease or to have the disease treated by responsible medical authorities. (Opposite, and Check List Nos. 30-31.) Today, posters on subjects of sexually transmitted disease have proliferated as a result of the devastation brought on by the AIDS epidemic, and the consequent necessity to use every effective means of communication in public education campaigns.

Infectious Diseases

While venereal diseases have been the major target of war-time public health campaigns, they certainly have not been the only ones for which posters have been employed. One prevalent infectious disease still with us, and which probably always will be, is the common cold. Everyone is familiar with the adage, "Coughs and Sneezes Spread Diseases." (Right, and Check List No. 32.) Henry Mays Bateman, the popular British cartoonist, produced a set of four posters with this title for the British Ministry of Health in the 1940s, each showing a scene where lack of concern for others arouses the wrath of onlookers. Measles, mumps and diphtheria remain problems in certain parts of the world, and campaigns have been mounted from time to time to call attention to their importance. (See p. 9 and Check List Nos. 33-34.) At the conclusion of war in 1945, local government authorities in the United Kingdom sent teams to villages and rural communities to emphasize the importance of immunization against diphtheria; posters on their vans sensitized passersby to the issue.

32. Coughs and Sneezes Spread Diseases.

British cartoonist H.M. Bateman produced a series of posters on the importance of protecting others from possible infection; each shows a crowded scene, such as this one in a draper's shop, in which a man or woman sneezes. (Courtesy of The William H. Helfand Collection.)

Smallpox fortunately has been eradicated, polio is much diminished, and the number of tuberculosis cases has been greatly reduced, although there is now some alarm that tuberculosis may be reasserting itself in economically depressed areas. Thus, posters for these former scourges now present a record of the past. Polio posters were produced primarily to raise money for research. A poster created in 1949 by Herbert Bayer for the National Foundation for Infantile Paralysis is a good example. Commenting on contemporary research results in 1949, Bayer drew a simple hand-held test tube to illustrate the title, "A Light is Beginning to Dawn." (Check List No. 35)

The majority of appeals for tuberculosis victims also had fund raising as their goal, and several of the most artistically important of all public health posters dealt with this issue. An Italian effort by Basilio Cascella, issued around 1920, showed a Red Cross nurse with her dagger attacking the dread cause of the disease, symbolized by a frightening serpent. (Check List No. 36) Cascella's poster raises the perplexing question for the artist of how to describe a disease such as tuberculosis in graphic terms. In addition to the serpent, Death personified, skulls, snakes, monsters, and extraterrestrial figures have been used over the years. To a certain extent, it was after the discoveries of Robert Koch, Louis Pasteur and other microbiologists in the nineteenth century that microbes and grotesque bacteria began to replace earlier visual metaphors.[8]

A second poster from about the same time, by Italian artist T. Corbella, used the equally powerful imagery of attacking swords to combat the figure of death. Cleanliness, sun, air, rest, proper food, hygiene and perseverance were allegorized in Corbella's poster to break the sword labeled "tuberculosis." (Check List No. 37) Lionetto Cappiello, an artist whose posters were largely promotions for commercial products, published an excellent example for the tuberculosis relief campaign conducted by the Rockefeller Foundation in France from 1919 to 1922. (Check List No. 38) In his caricature-like style, Cappiello drew a mother holding her child as far from an attacking snake as she could, while she attempted to trample the reptile to death. The Rockefeller Foundation pioneered in its leadership, recognizing that a great deal of effort was needed to aid the French in treating the almost overwhelming number of tuberculosis cases resulting from the lengthy and costly war. In their attack on the public's ignorance of the disease and methods to combat it, the Rockefeller group brought experience in the conduct of mass health education campaigns, using American know-how in a country for whom it was an entirely new experience.[9] As a major aspect of its campaign, the Rockefeller Commission for the Prevention of Tuberculosis in France commissioned twenty posters and at least a dozen post cards, distributing them freely throughout the country by mail and at conferences to inform audiences of

what could be done about tuberculosis. Among other poster artists represented in the Rockefeller program were Louis Raemakers, Georges Dorival and Auguste Leroux. (See p. 10 and Check List Nos. 39-41.)

An American poster on behalf of the Red Cross Christmas Seal Campaign during the 1920s promised that tuberculosis would be "The Next to Go," with the illustration showing the protector of his family pushing the dread visitor out the door. (Check List No. 42) This and other Christmas Seal campaigns to solicit contributions for tuberculosis research normally required a newly minted poster each year. Frequently, these posters included the Christmas seal itself in the design, and it was common for the artists to use illustrations of young patients, considering them to be a forceful means of obtaining contributions from prospective donors. (Check List No. 43) B.C.G. vaccine, and one of its discoverers, Albert Calmette, were prominent in several French Christmas seal posters. (See p. 11 and Check List No. 44.)

Among the more engaging posters on tuberculosis were those designed to raise funds for World War I veterans who had contracted the disease while on active duty. Backed by a private French group with support from the French and American governments, the Journée Nationale des Tuberculeux was an annual fund-raising day, for which leading artists were commissioned to create posters. Those by Lucien Lévy-Dhurmer and Abel Faivre are among the more absorbing examples in this series. In Lévy-Dhurmer's poster an ailing soldier, supporting himself with a walking stick under a beautiful spray of cherry blossoms, casts a forlorn gaze across an impressionistic sea. (Check List No. 45) Faivre was best known as a popular caricaturist in the early twentieth century. He published a series of cartoons on doctors in the weekly satirical journal, *L'Assiette au Beurre*, but he also designed influential posters for varied aspects of the French war effort, one of which illustrates a weary soldier with a nurse's hands on his shoulders. (Check List No. 46) A poster by Alfred Philippe Roll was published during the war to stimulate aid for tuberculosis victims; his scene of a nurse and her desolate patient was a memorable image in this series of fund-raising campaigns. (Check List No. 47) Yet another example was the somewhat confusing allegorical design by Charles Jodelet, "La Corse a la Mort" (The Race to Death), published by the Ligue Nationale Française Contre le Péril Vénérien in 1926. Jodelet made disease into a horse race, giving statistics for the number of annual deaths from tuberculosis, the clear victor, as well as from cancer and syphilis--as though there really could be a winner in such matters. (See p. 13 and Check List No. 48.) Death, draped in a white shroud, observes it all through a magnifying glass, an hourglass at his side.

There are posters warning of the scourges of malaria, typhus and numerous other infectious diseases and,

33. Diphtheria is Deadly.

A British poster, c. 1930, stressing the necessity of immunization against diphtheria. (Courtesy of The William H. Helfand Collection.)

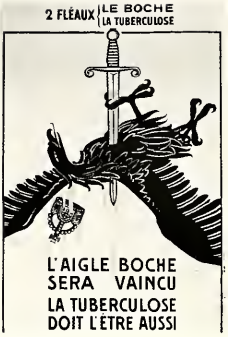
in Third World countries, where sanitation levels are less than optimal, examples exhorting the public about cleanliness itself. Flies, a universal enemy, often receive special treatment, as do the diseases they transmit --dysentery, typhoid and cholera. An anonymous Italian poster of the 1920s, "Guerra alla Mosche," makes impressive use of the imagery of planes and bombs to point out the need to eradicate disease-carrying flies. (Check List No. 49).

As might be expected, malaria necessitates continual warnings to emphasize public health measures. The approach poster artists commonly took was similar to that used for sexually transmitted disease campaigns: simple graphics and repeated messages. One malaria poster encourages readers to use nets, take treatment, and cover arms and legs against bites after dusk. (Check List No. 50) "I'm Looking For You," an anti-malaria poster by Abram Games, the artist in charge of the British poster program during World War II, presented a striking design warning of the necessity to protect against the mosquito. (Check List No. 51) Of the nearly one hundred posters Games published during his War Office career, a good proportion were on public health subjects. For example, a Games poster with a huge insect dominating the illustration warned that flies "Carry Disease from Filth to Food." (See p. 14 and Check List No. 52.) Not surprisingly, there were additional posters by Games on protection against venereal disease. His technique, involving heavy use of the air brush, gave him better artistic control than photographs, and often provided an abstract or surreal look to his posters.[10] In contrast to the simplistic approach preferred by the American poster artists of the World War II era, Games believed that war posters should make viewers think for themselves. His dramatic use of symbolism created the most sophisticated posters produced during the war.[11]

Cancer

Beyond the field of infectious diseases, posters have been designed for other important public health problems, such as cancer, cardiovascular disease, alcoholism and nutrition. Because of the need for early diagnosis, cancer has been and continues to be a frequent subject. The U.S. Public Health Service has published posters delineating cancer's danger signals, and has cooperated with the American Cancer Society to conduct campaigns stressing early diagnosis and warning against cancer quackery. (Check List Nos. 53-54)

As part of a lengthy anti-quackery campaign, posters in the late 1930s reflected the limited treatments available at the time, presenting simple illustrations and cautioning that "No Home Remedy, No Tonic, No Special Diet, No Salves, No Powders, No Pills Ever Cured, Only Surgery, X- ray or Radium Can Cure Cancer." (Check List No. 55) Statistics also were employed in the war on cancer; one poster in the late 1930s stated that cancer had



40. L'Aigle Boche Sera Vaincu.

In this 1917 tuberculosis poster, French artist George Dorival tied two goals together--vanquishing both the German enemy and tuberculosis. (Courtesy of National Library of Medicine Collection.)

cer had gone from seventh to second place among the big killers in the last twenty-five years, although what purpose this information served for those who saw the poster is unclear. (Check List No. 56)

Contemporary Public Health Issues: Alcoholism, Substance Abuse and AIDS

While posters for certain public health themes, infectious disease and cancer, for example, continue to be published today, the majority of contemporary posters are issues of greater concern to the general public, alcoholism, substance abuse and AIDS. Alcoholism has long been among the most important public health problems in society. Throughout the world, with the exception of the United States and several European countries, public health campaigns attacking alcoholism and other health problems are the responsibilities of governments alone: In general, governmental educational efforts, including posters, bear an "official" stamp, stating the basic positions and priorities in public health communications. This is not to imply that government posters are inferior because they are official, because there are some very creative, imaginatively designed examples emanating from government groups.

The United States is probably the only nation in the world in which private initiative in public health campaigns often exceeds that of the government. This fact is especially true with alcoholism, substance abuse and AIDS, major current problems receiving increasing attention from public health organizations. Private groups now make effective contributions and, not surprisingly, a variety of interests is reflected in their posters.

Anti-alcoholism education programs have been active for some time, and many earlier posters on the subject have their origins in France, where the problem has been particularly severe. In the 1930s, a campaign using more than a dozen poster designs, presented in a straightforward manner to stress the devastating effects of alcoholism on family life, was published in French and Spanish. (Check List No. 57) The Union des Françaises Contre l'Alcool commissioned B. Chavannez to design three posters for a similar purpose; these posters used a more emotional appeal in educating the populace as to the pitfalls of alcoholism. (See p. 15 and Check List Nos. 58-59.) Another early instance is the Steinlen poster for the Ligue Populaire Antialcoolique in Lyon, with a gruff bartender standing behind a row of glasses as the illustration. (Check List No. 60)

Contemporary posters from the United States and Europe, both from government agencies and private sources, pursue both lines of attack: factual, as in the French and Spanish series on alcoholism; and emotional, as in the Steinlen poster noted above.

And for the most part, these contemporary public health posters follow in the tradition of Steinlen, Mauzan, Raemakers and other artists who have provided us with

44. Achetez le Nouveau Timbre Antituberculeux.

Albert Calmette, joint discoverer of the antituberculosis vaccine, B.C.G., is shown on a 1934 French poster for Christmas seals. (Courtesy of National Library of Medicine Collection.)

memorable graphics. Nevertheless, changes are apparent and posters today frequently differ in important aspects from those published in the past. First, few contemporary posters are created by artists; most are the products of design studios or photographers, presented anonymously. Second, there is a new boldness best exemplified in posters presenting information on two key issues in contemporary society--drug addiction and the still unsolved trauma brought by AIDS.

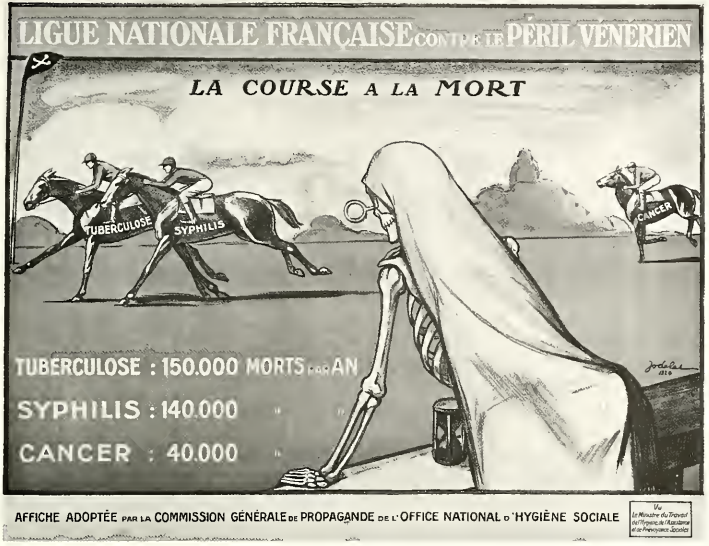
Posters dealing with drug addiction are relatively new phenomena, since the medium does not seem to have been employed during the earlier wave of public concern over addiction at the close of the nineteenth century.[12] In fact, it has only been since the 1970s that posters have appeared warning of the problem. A particularly striking example of a poster on drug addiction, making use of the ubiquitous Death's head, appeared all over Lisbon in the summer of 1972.

Traditionally, reticence to use popular media to discuss addiction may have been due to several factors--either because posters were not deemed to be effective, or because agencies did not wish to call the problem to the attention of the public, assuming it would go away of its own accord. It may also have been that the subject of drug addiction was deemed too coarse for public airing. Today these attitudes have changed, and contemporary posters often are striking. Examples from official sources, such as the Department of Health and Social Security in Great Britain, now show realistic views of the effects of addiction, holding nothing back, similar to those developed by private groups in the United States. (See p. 16 and Check List Nos. 61-63.)

Of course, these examples are but a few of many employed in campaigns against drug abuse and many are actually more sober in providing factual information. However, it is true that posters which dramatize the sequelae of addiction are more important in eliciting an unforgettable emotional response than simple artistry in poster design. The nature of the problem now puts less of a premium on the artist's contribution, and more on telling imagery.

Posters are very much in evidence in the current world-wide battle against AIDS. Although the disease was first diagnosed in 1981, AIDS posters did not begin to appear until 1985, and lately the number of posters published each year has been escalating. In the United States, an industry has emerged to bring intelligence about AIDS to the general population, principally to particularly vulnerable groups: the homeless, homosexuals, residents of inner cities, intravenous drug users and their sexual partners. A comparable industry exists in other countries where government health agencies, and private associations in almost all the affluent nations, are engaged in disseminating information about AIDS.

Their messages are carried through radio, television, films, articles in the press, brochures, advertisements and


LIGUE NATIONALE FRANÇAISE CONTRE LE PÉRIL VÉNÉRIEN
LA COURSE A LA MORT
TUBERCULOSE
SYPHILIS
CANCER
TUBERCULOSE : 150.000 MORTS PAR AN
SYPHILIS : 140.000
CANCER : 40.000
AFFICHE ADOPTÉE PAR LA COMMISSION GÉNÉRALE DE PROPAGANDE DE L'OFFICE NATIONAL D'HYGIÈNE SOCIALE

48. La Course a la Mort.

Death, a magnifying glass in hand, carefully observes a race among the leading causes of disease in France in a 1926 poster by Charles Jodelet. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

posters. Posters are only one medium in communicating facts, warnings and suggestions for alternative behavior to elude this still incurable syndrome, and they are not always the most widely used. Often posters are an inefficient vehicle in reaching everyone and may not be the most cost-effective means of influencing special target groups. However, they provide a practical and rapid means of reaching a broad audience, and as such frequently form a major part of contemporary campaigns. An analysis of the published record of AIDS posters reveals a great deal about contemporary attitudes of society towards the problems inherent in combating this devastating illness. It also reveals national and cultural differences in approaches used to communicate methods necessary to curtail the spread of AIDS. Equally interesting is the diversity of directed approaches to specific segments of the population.

As a form of public communication, posters have a major problem in that they are ephemeral; they are here today and gone tomorrow. Unlike books and fine prints, which tend to be preserved in public and private collections, posters are quickly destroyed by the elements if mounted outdoors, and quickly superseded by more

recent information on office bulletin boards or hospital walls. Thus, an admitted disadvantage of using posters is their poor staying power. Because of this, it is extremely difficult to reconstruct material used in educational campaigns in past epidemics. For example, it is now almost impossible to locate examples of posters published as part of the 1975 swine flu campaign during Gerald Ford's administration. Although they were ubiquitous at the time, very little of the numerous cartoons, brochures, posters, booklets, badges and other printed ephemera available then appears to have been preserved.

To ensure the preservation of at least some posters, in late 1987 the National Library of Medicine (NLM), in Bethesda, Maryland, began to build an archive of contemporary public health posters from all over the world. Despite its brief life, the collection now has grown to more than 4,500 examples and new posters arrive regularly. In addition, there are about 200 posters on public health themes from earlier periods, and the collection is particularly strong in Russian posters from the 1920s and the 1930s.

Without doubt AIDS, along with related issues on the use of condoms and safe sex practices, is the health issue most broadly represented in the collection. There are more than a thousand agencies in the United States alone dealing with the AIDS problem; they include the United States Public Health Service, state health departments, civic, religious, gay and fraternal organizations.[13] When international government and private agencies are added to this total, the number of issuing bodies increases significantly. As a result, there are now more than 800 different posters from countries around the world in the NLM's AIDS collection, and there are certainly a greater number that are not included. This poster archive clearly will be of value for future researchers studying methods used to sensitize public response to AIDS during the 1980s.

Not surprisingly, several ideas used in the past for public health posters appear with only minor modification in AIDS campaigns, and it is interesting to note the variations artists and designers use in treating similar concepts. At the same time, there is a boldness rarely seen until the present, as the impact of AIDS has entered the public consciousness.

The posters about AIDS stress a limited number of recurrent themes--safe sex, the use of condoms, fear of contracting a still deadly disease, transmission in pregnancy, avoidance of sharing needles and the need to be informed. Even though AIDS is largely transmitted sexually, women have not been addressed sufficiently in poster campaigns, undoubtedly owing to earlier assumptions that it was only gay men who could contract the disease.[14]

The AIDS posters appearing today generally can be divided into a number of categories. The most common category presents information on the disease or proposes that readers seek out pertinent facts. For example, an

52. They Carry Disease from Filth to Food.

Abram Games, a leading British poster artist during World War II, designed this poster for servicemen to point out the importance of fly control. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

Australian poster lists five groups of statements: who gets AIDS, what AIDS is, how one gets AIDS, what will not lead to AIDS, and how one can be safe. (Check List No. 64) A large number of posters list similar facts, varying only in the amount of detail and in the graphic treatment of information.

Factual posters such as these have always been a primary theme in public health education. A French poster, published by the Rockefeller Foundation which illustrates proper procedures to prevent tuberculosis, is a good example. (Check List No. 65) This poster shows, in twelve small illustrations, how tuberculosis is communicated, what precautions one should take against infection, etc. Today such factual posters remain in the forefront in bringing educational messages to the public about AIDS.

A variation on such informational posters stresses the risks of fatal consequences if the facts are ignored; the message cautions people about the insidious nature of AIDS. Creators of these posters either state the warning explicitly ("AIDS is a killer"), or they use striking graphic images to communicate the same message. The combination of information with potent imagery makes for more memorable and effective posters.

To allay fears and misconceptions, another group of informational posters demonstrates what will not cause an AIDS infection. A recent campaign among schoolchildren in Alaska developed a number of useful ideas, among which was one poster of a magnified mosquito, with the headline, "Go ahead! Spread the Word! You Can't Get AIDS From Alaska's State Bird!" (Check List No. 66) Another popular poster used throughout the United States attempts to quell commonly expressed fears, illustrating a handshake, a doorknob, a toilet seat and a table setting, pointing out that "None of These will Give you AIDS." (Check List No. 67) This approach is similar to prior campaigns to quiet fears by providing accurate information as to what will and what will not cause cancer. Such posters also bear some affinity to those that in the past distinguished appropriate from inappropriate treatment.

Finally, there are informational posters which propose that readers

Ah.! Quand supprimera-t-on l'Alcool ?
Ecrivez ou Allez vous inscrire à l'Union des Françaises Contre l'Alcool
a PARIS 28 Rue des Saints Peres de 2 heures a 5 heures

58. Ah! Quand Supprimera-t-on l'Alcool?

As part of a program to reduce alcohol consumption in France, B. Chavannez published this poster showing the effects of alcoholism on a family. (Courtesy of National Library of Medicine Collection.)

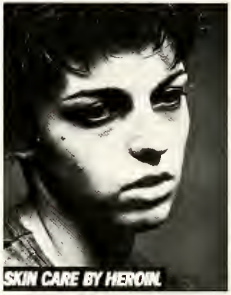
call or write for more complete information. These posters merely suggest the importance of obtaining information, without specific detail. The AIDS Action Committee published a poster with the message, "Get the Answers," the illustration repeating the work "ask" in a variety of typefaces and sizes. (See p. 41 and Check List No. 68.) In this poster, a telephone number was provided for viewers to follow-up on the notice. Similar posters promise a booklet that will be sent through the mail. These efforts rely on striking graphics for attention rather than on important messages.

One never knows, of course, whether compelling graphics are sufficient tools for effective communication. To be sure, the first requirement of a poster is to communicate. Its effectiveness is dependent upon initiating a response to its message, by purchasing something or changing some pattern of behavior.[15] Some designers are better at achieving their objectives to move people to action than others. The fact that posters continue to be used widely in all countries and in all cultures confirms that they produce positive results.

Celebrities, including artists who normally might not be associated with so serious a problem, have been marshalled to aid in AIDS communications. A Normal Rockwell illustration of a father giving the "facts of life" to his son, contains an added warning, "Don't Forget the Chapter on AIDS." (Check List No. 69) Popular rock singer Patti LaBelle appears in a poster published by the American Red Cross urging viewers, "Don't Listen to Rumors about AIDS; Get the Facts." (Opposite, and Check List No. 70.) Certainly the idea of using celebrities in posters is not new since the technique frequently has been employed for earlier public health problems. (See p. 18 and Check List No. 71.)

Another category of AIDS posters relies on emotional imagery to elicit fear. Gravestones (or more frequently, skulls and corpses) convey stark warnings on the importance of avoiding exposure. A Mexican poster shows a morgue as the setting for a corpse; only the victim's feet are visible, but the message is clear nonetheless. The headline, "El Riesgo es de Todos" ("All Are at Risk") perhaps is superfluous. (Check List No. 72) Similarly, a poster by the Pharmacists' Planning Service of Sausalito (California), shows a row of gravestones with the caption "People are Dying to Know." (Check List No. 73) A poster from PAHO, the Pan American Health Organization, shows an anguished figure filling the spaces in the word SIDA (the French and Spanish word for AIDS). (Check List No. 74) The figure is clearly intimidated. Why he should be frightened and what viewers should do to prevent being in the same state are the essential messages of the poster. The text demands simply that readers get the necessary facts--and to the extent that the graphics are effective, it is most probable that they will.

The most powerful posters calculated to generate fear use an image of



61. Skin Care by Heroin.

The devastating effects of heroin addiction on the face of a young girl are shown in this British poster.The subtext reads: "Take heroin and before long you'll start looking ill, losing weight and feeling like death. So, if you're offered heroin, you know what to say." (Courtesy of National Library of Medicine Collection.)

a skull. For example, a Spanish language poster, "El SIDA," published by the Nipomo (California) Community Medical Center, contains a line drawing of a skull with a syringe in its mouth. (Check List No. 75) The text reveals what AIDS is, how one gets it, and what must be done to avoid it. Understandably, the image of Death does not need extensive text to convey its message. This particular image is reminiscent of the Raemaker's syphilis poster used during World War I. (See p. 3 and Check List No. 7.)

It is noteworthy that AIDS posters do not single out women as the cause of infection, in contrast to venereal disease posters of earlier years. In Africa, however, where heterosexual sex is the major route of transmission, there are posters warning men to watch out for easy sexual partners. One poster from Mauritius, for example, uses cartoons to illustrate the point. (See p. 20 and Checklist No. 76.) As heterosexual transmission grows in importance, especially in inner city areas and among intravenous drug users, more posters with similar subjects undoubtedly will appear.

While most posters in AIDS campaigns are designed by graphic artists, or anonymous design studios and photographers, several well-known artists also have developed poster images. Of course, artists have been involved in drives to raise money for AIDS research and patient care, and there have been exhibitions of the work of film makers, photographers, painters and sculptors on AIDS subjects. With minor exceptions, however, popular artists have not been commissioned to design posters for AIDS.[16] Paul Davis, the artist responsible for memorable campaigns for the New York Public Theater, published a poster to raise money to benefit the East End Gay Organization in East Hampton, New York, but nevertheless, Davis' image is not related specifically to AIDS. (Check List No. 77) A widely distributed poster for its AIDS activities was created for the Student Health Service of the Berkeley campus of the University of California by well-known San Francisco artist David Lance Goines. (See p. 21 and Check List No. 78.) Goines's use of an image of an apple and a snake aroused some controversy in that its

70. Don't Listen to Rumors About AIDS. Get the Facts.

A photograph of popular singer Patti LaBelle is used to stress the importance of obtaining accurate information concerning AIDS. (Courtesy of National Library of Medicine Collection.)

illustration specifically called attention to sexual transmission. As has been documented for some time, AIDS can be acquired by other means as well. Goines's design continues the tradition of earlier posters relative to venereal disease, using allegory to minimize attacks on the public's sensibility. It is a dignified way to handle an otherwise difficult subject. Still, Goines's approach is a minority one; for the most part, the imagery used in contemporary AIDS posters is, as with those for drug addiction, often extreme. In the case of AIDS portrayal, the problem of representation of the causative agent is just as perplexing as always, because there is no satisfactory way yet developed to illustrate HIV effectively.

In the continuing drive to reach as many people as possible with messages on AIDS prevention, poster campaigns have been developed to appeal to specific groups. Such market segmentation has been an important technique for commercial products and has proven useful in the public health field as well. The People of Color Against AIDS, an organization in Seattle, states that "AIDS is a White Man's Disease" in their series of posters, "Famous Last Words." (Check List No. 79) Special campaigns are directed to those who have many sexual partners; an example from the Seychelles urges readers to acknowledge that casual relationships are just not worth it, or that, as a poster from Trinidad and Tobago, islands in the Caribbean, suggests, "You're Safer with One Partner." (Check List Nos. 80-81) A Philippines poster directed to prostitutes reminds them to provide condoms for their clients. (Check List No. 82) Special campaigns are directed to women of childbearing age, urging them to be tested before becoming pregnant. While these posters have great impact, especially the series carrying the title, "She Has Her Father's Eyes and Her Mother's AIDS," (Check List No. 83), there remains the problem of reaching that group of women to whom the campaign is directed, and then convincing them to take required steps to be tested. These messages urge women who might have been exposed, or who might be carriers of the AIDS virus and who are considering pregnancy, to be extremely cautious. The messages are to the point: "DON'T. You read about people who can carry the AIDS virus but show no symptoms; don't take chances. Get tested before you become sexually involved." (Check List No. 84) Despite all these educational campaigns, however, the number of children born with AIDS regrettably continues to grow.

The American poster of the appealing baby with "Her father's eyes and her mother's AIDS" exists in versions showing a black child as well as a white child. Similarly, posters of intravenous drug users repeat the same copy in versions showing a black, white and Hispanic model. There are also posters of gay men--black, white and Hispanic--directed to specific segments of the population. A series of posters published by the New Haven Mayor's Task Force presents telling

71. L'Homme le Plus Fort du Monde Declare ....

French boxer Charles Rigoulot suggests that the reasons for his success in the ring are due to his avoiding alcohol. (Courtesy of National Library of Medicine Collection.)

photographs of men and women-- black, white and Hispanic-- in English and Spanish, discussing the importance of practicing safe sex. (Check List No. 85) These segmented campaigns are for American audiences, of course, but correspondingly, posters published in multi-lingual countries such as Canada, Belgium and Switzerland have similar illustrations with different texts.

Another special target has been prospective blood donors. Widespread anxiety erroneously exists over possible dangers of infection with the HIV virus in donating blood, and several posters have been produced to try to allay these fears. The purpose of these posters is to stress safety and to reduce disquiet over possible contamination. (See p. 22 and Check List Nos. 86-87.)

While many issues in AIDS posters have antecedents, there are several using completely new ideas. The seriousness and pervasiveness of the AIDS crisis has necessitated discussing subjects openly in ways that never would have been tolerated in the past. The use of condoms and the vital importance of safe sex practices are categories of novel posters that, in fact, are among the most forceful ever developed. The intent of many of the condom themes has been to make their use a de-mystifying everyday event, worthy of no special attention. For example, one Swiss postal campaign blends romance with condoms, using one as a substitute for the full moon, in settings over easily identifiable places-- Hawaii, Paris, Rome, Rio and London. (Check List No. 88) The agency preparing these posters has made them in several sizes, the largest for outdoor billboards, and the smallest prepared as stickers to be affixed to envelopes. Three Icelandic posters show ordinary citizens using a condom in unorthodox ways, playing with one, stretching one, blowing one up, using one as a head covering, etc. (Check List No. 89) Equally noteworthy in this bold new approach is the fact that the photographs of the men and women used as models in these posters also carry their signatures. The message is definitely clear from such posters: Condoms will "Stop AIDS." The popularization of condoms has even spawned National Condom Week, as a poster published by the Pharmacist's Planning Service of Sausalito (California) testifies. (Check List No. 90)

The series "Famous Last Words," distributed by People of Color Against AIDS, also includes one, "I Don't Need to Wear One of Those," stressing the necessity of using condoms. (Check List No. 91) In the same vein, a British poster widely used in airports and bus terminals shows a condom with the headline, "Life Insurance for 15p." (Check List No. 92) From a distance, unfortunately, it is not possible to know what is being sold, and only close inspection reveals that the object in question is a condom. Hence, the subtlety of the poster may well be lost on many. On the other hand, a couple embracing over the headline, "Don't Die of Embarrassment; AIDS is a Killer. Use a

76. Le SIDA. Evitez les Parinaires Faciles.

A poster from Mauritius, reminiscent of posters used during World War I and World War II, warns that easy women may be transmitters of AIDS. (Courtesy of National Library of Medicine Collection.)

Condom," seems better at holding the attention of the viewer. (Check List No. 93) As is the case with commercial advertising, it is only the balanced blend of text and image that can provide an effective result.

Caricatures and comic strips also have been used to enhance the acceptance of condoms. The Ministry of Health of Australia has developed comic strip posters to stress the need for condoms in campaigns directed to the Aboriginal community. Organizers of this Australian campaign even have developed a poster with a new hero--Condoman, who suggests that the viewer "Use Frenchies." (See p. 24 and Check List No. 94.) In one poster with the admonishment, "You Don't Have to be a Queenie to Get AIDS," a man has sex with someone who has AIDS. (See p. 26 and Check List No. 95.) He goes back to his wife. She gets sick; she gets AIDS. Quickly, everybody gets sick and dies. As noted earlier, the comic strip technique is an easy method of attracting attention. Its usefulness was proven in venereal disease campaigns in World War II, in which blown up images of brief episodes stressed the need to avoid prostitutes or pay quick visits to the pro station. (Check List Nos. 21-22)

Of course, posters used by American officials in World War II did

occasionally discuss the importance of prophylaxis, but they never were so bold as to mention the word condoms. The posters in the series by Arthur Szyk (Check List Nos. 23-24), for example, suggested that failure to use prophylactic measures was an aid to the enemy, and another poster carried the headline, "Sex Exposure Without Prophylaxis is an Aid to the Axis," but condoms neither were pictured nor mentioned. (See p. 31 and Check List No. 96.)

Gay groups also have emphasized the importance of using condoms in the practice of safe sex. The Gay Men's Health Crisis in New York has distributed an effective drawing, with text in both English and Spanish, noting that "A Rubber is a Friend in Your Pocket." (See p. 32 and Check List No. 97.) A Swiss poster shows condoms along with a watch band, a necktie and other masculine apparel, implying that this is the new intimate line for men. (Check List No. 98) In another poignant poster, a large photograph of a condom has only the briefest text, in letters much smaller than the photograph, "Help Prevent Despair. Care." (Check List No. 99) HERO, a Baltimore group, has issued posters of gay men--black, white and Hispanic--with the provocative headline, "You Won't Believe What We Like to Wear in Bed." (Check List No. 100)

Expanding on the importance of condoms, a related category includes those posters discussing safe sex in its various aspects. Again, many of the posters on this theme have been issued by gay groups. Two representative images by Bruce Rapp were published by The CORE Program, a group based in Los Angeles, with copy reading, "Safe Sex. Are You Man Enough?" (See p. 33 and Check List Nos. 101-102.) Another poster displays the muscular torso of a man with the copy, "No Less a Man for Playing Safe." (Check List No. 103) In their attempts to gain attention, designers of some posters directed to the gay community are extremely frank in discussing sexual practices. For example, a poster by the Colorado AIDS Project promises that "Our Workshop is Positively Erotic," and another from the Tucson AIDS Project, parodying a title from a Paul Simon song, suggests that "There Must be 50

78. AIDS Prevention.

California poster artist David Lance Goines developed this poster, showing a snake wound around an apple on a tree, to support the Berkeley Student Health Service. (Reproduced with permission of the artist. Courtesy of National Library of Medicine Collection.)

Ways to Please a Lover," illustrating sixteen of them. (Check List Nos. 104-105) A large poster for the Colorado AIDS project, cleverly designed to be used either as one or as six individual smaller posters, proposes methods of practicing safe sex with the titles "Taste, Watch, Touch, Excite, Explore, Imagine," with appropriate illustrations and provocative texts for each. (Check List No. 106)

A critical AIDS campaign is directed to IV drug users. The problem of reaching this group to stop so deadly a practice is not an easy one to solve. A crudely drawn poster from the Brooklyn AIDS Task Force admonishes, "Hey Man—No Sharing." (See p. 42 and Check List No. 107.) Both Swiss and American posters have appeared with large syringes and needles as the illustration, with brief texts urging readers, "Don't Pass It On." (See p. 34 and Check List Nos. 108-109.) Other posters, especially those published by the British Department of Health and Social Security, are more striking and bold. One with the headline "Heads You Live, Tails You Get AIDS," and another stating "If You Get into Injecting, What's Going to Get into You?", are representative. (Check List Nos. 110-111) These daring visual images do get the attention of viewers, but the problem is to make those practicing the vicious habit of intravenous drug usage and the sharing of unclean needles to notice the poster in the first place. Even the most shocking illustration cannot guarantee that members of this hard-to-reach group will notice, since they may be completely resistant to any message at all. A dramatic poster in this category is a billboard-sized advertisement issued by the U.S. Public Health Service showing a skeletal hand, with the legend, "Sharing Needles is Just Asking For It." (Check List No. 112)

A final theme in AIDS education efforts, and a relatively recent addition, urges compassion for the patient with AIDS. Posters from the United States and from Germany make exactly the same point: "Don't Give AIDS a Chance," and don't leave the patient with AIDS to suffer alone. (See p. 35 and Check List Nos. 113-114.) One of the strongest and most appealing examples in this group is that of a child: "I Have AIDS; Please Hug Me. I Can't Make You Sick." (See p. 36 and Check List No. 115)

Unfortunately, the NLM collection does not permit any generalization about changes in content over time. Few of the posters against AIDS are dated, and few have the names of the artists and design studios who prepared them. Certain trends are clear, however. In the United States now, a greater effort is being directed towards minority groups, to the homeless, and to intravenous drug users. Greater efforts are being expended to reach those living in slum areas of large cities. In Europe also, there is a noticeable drive to address a broader segment of the population, but not to the extent that it has in this country. Third World efforts are still not as hard-hitting and bold as they are

DOAR $ANGUE E
UM ATO DE AMOR.
DOE SANGUE
DOAR SANGUE NÃO DA AIDS.
MINISTÉRIO DA SAÚDE
MINISTÉRIO DA PREVIDÊNCIA E ASSISTÊNCIA SOCIAL - INAMPS

86. Doar Sangue e um Ato de Amor.

The Pan American Health Organization published this poster in both Spanish and Portuguese to ally fears over possible AIDS contamination in blood donation programs. (Courtesy of National Library of Medicine Collection.)

elsewhere, even though for their populace the problem is growing rapidly.

Despite the variety of appeals in the posters on AIDS, there is one concept which might have been expected and which does not seem to have surfaced as yet. None of the AIDS posters in the sample of 800 in this analysis shows a patient with AIDS. Why should this be the case? Are considerations of privacy and public sensibility sufficient to overcome the need to show the ravaging effects of the disease? Would the appearance of an AIDS patient be an effective means of getting attention, or would it so offend viewers as to negate any interest in obtaining further information? Patients with AIDS have been the subject of photographs by leading artists, most notably Nicholas Nixon, but the purpose of these photographs differs from that of the poster. Nevertheless, new posters keep appearing, and their number will continue to grow as long as the AIDS problem remains. For this reason, it seems logical that posters, including illustrations of AIDS patients, might well be included as time goes on. In any event, the existing large group of posters is clearly representative of the extensive educational efforts worldwide that have been mounted to direct attention to the catastrophic effects of AIDS. The archive of AIDS posters that the NLM is building can be only expected to grow in importance in the future.

Conclusion

Posters have been a powerful force in shaping public opinion because propagandists have long known that visual impressions are extremely important in memory retention. Although people may forget a newspaper article, most remember a picture. A pamphlet or a newspaper can be thrown away, unread; the radio or television turned off; films or political meetings not attended. At some time or other, however, everyone notices messages when walking or driving, or sees posters on bulletin boards in offices, hospitals, clinics or pharmacies. The main objective of posters, as with other communications media, is to influence attitudes, to sell a product or service or change behavior patterns. Public health posters are clearly in the third category, their purpose being to alter the consciousness of the public so as to bring about an improvement in health practices. In presenting their appeals, poster designers frequently have been able to achieve an artistically worthy result, but their overall success must be measured more by effectiveness in convincing viewers of their messages. Continued publication of posters to convince and motivate the public definitely points to positive consequences. Thus, posters continue to be used as much as ever, their designs evolving to reflect contemporary sensibilities and the needs of society as a whole.

Notes

1. Maurice Rickards, *The Public Notice* (New York: Clarkson N. Potter, Inc., 1973), 43.

2. John Gross, "Plague Years in the Imagery of Those Who Endured Them," *The New York Times*, January 31, 1988, Section 2, 35.

3. Maurice Rickards, *Posters of the First World War* (London: Evelyn, Adams and Mackay, 1968).

4. W.H. Helfand, "The Poisoning of the Sick at Jaffa," *Veröffentlichungen der Internationalen Gesellschaft für Geschichte der Pharmazie E.V.*, Band 42 (1975):79.

5. Allan M. Brandt, *No Magic Bullet* (New York: Oxford University Press, 1985), 52.

6. A pro station or prophylactic station was the place to which a serviceman went after a sexual encounter.

7. Brandt, *No Magic Bullet*, 101.

8. For illustrations of various methods by which cholera has been depicted, see P. Bourdelais, and A. Dodin, *Visages du Cholera (Paris: Editions Belin, 1987).*

9. Nancy Tomes, "The Rockefeller Commission for the Prevention of Tuberculosis in France: A Comparative Perspective on American Health Reform," unpublished manuscript, 1989.

10. Abram Games, "Art for the Cause of Victory: My World War II Posters," *P.S. (Quarterly Journal of the Poster Society)*, 1 (1986):3,17.

11. Anthony Rhodes, *Propaganda, The Art of Persuasion: World War II* (New York: Chelsea House Publishers, 1976), 114.

12. David F. Musto, *The American Disease*, (New Haven: Yale University Press, 1973).

13. Christopher S. Hall, ed., *AIDS Lifeline: AIDS Educational Service Organizations* (Washington, D.C.: National AIDS Network, 1988).

14. Paula A. Treichler, "AIDS, Gender and Biomedical Discourse: Current Contests for Meaning," in Elizabeth Fee and Daniel M. Fox, eds., *AIDS, The Burdens of History*, (Berkeley: University of California Press, 1988), 190-266.

15. William H. Helfand, "The Pharmaceutical Poster," *Pharmacy in History 15* (1973):2,67.

16. Michael Kimelman, "Bitter Harvest: AIDS and the Arts," *The New York Times*, Section 2, March 119, 1989, 1.

94. Condoman Says: Use Frenchies!

A newly-created comic hero, Condoman, proclaims the absolute need to use condoms as a means of preventing AIDS infection. (Courtesy of National Library of Medicine Collection.)

La Syphilis
est un fléau Social
Ses Victimes sont Innombrables
THEO DORO
Nombreux sont ceux qui sont atteints sans le savoir.
La Syphilis des parents est une des principales causes de maladies et de mort des nouveaux-nés et des enfants.
Un grand nombre d'affections chroniques sont d'origine Syphilitique
La Syphilis est une maladie grave mais heureusement guerissable
Pour tout SYPHILITIQUE c'est un devoir de se Soigner et d'éviter de transmettre son mal.
Ligue Nationale Française contre le péril Vénérien
Reconnue d'Utilité Publique par décret du 25 Août 1926. 44, Rue de Lisbonne. PARIS
Imp KAPLAN · L. LEGRAS . PARIS
Vu : Le Ministre du Travail, de l'Hygiène, de l'Assistance et de la Prévoyance sociales.

8. La Syphilis Est un Fleau Social. Ses Victimes Sont Innombrables.

The French artist, Theodoro, used the frightening image of a man and woman kissing beneath a grinning skull to illustrate the seriousness of possible syphilis infection. (Courtesy of Philadelphia Museum of Art: The William H. Helfand collection.)

36. Italiani, Aiutate la Croce Rossa Nell'Assistenza ai Tuberculosi.

In this Italian poster by Basilio Cascella, a Red Cross nurse uses a small dagger to attack the monster of tuberculosis, here circling the globe. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

37. Con Queste Armi Vinciamo Tuberculosi.

An Italian poster by T. Corbella, published around 1920, showing the methods--sun, air, resl, etc. that will conquer tuberculosis. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

38. Ecrasez la Tuberculose et Sauvez l'Enfance.

A poster by Lionetto Cappiello published as part of the anti-tuberculosis campaign carried out in France by the Rockefeller Foundation during the years after World War I. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

42. The Next to Go. Fight Tuberculosis.

Posters have been used continually throughout the world to support annual Christmas seal campaigns. This example of the man pushing a symbol of tuberculosis out of the room was published in the 1920s. (Courtesy of The William H. Helfand Collection.)

49. Guerra Alla Mosche!

Flies, shown as airplanes, drop bombs on a crowd of people in an Italian poster, c. 1910, designed to stress the importance of sanitation in the prevention of infection. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)

Checklist of Posters Cited

1. PEST PEST, Anonymous, Germany, 1683. Ars Medica (Philadelphia Museum of Art) Collection. A quarantine sign, showing two crosses over the words of the title.

2. SIFLIS, by Ramon Casas, Spain, 1900. Ars Medica (Philadelphia Museum of Art) Collection. A pretty woman wearing a long, fringed cape, holds a flower, as a snake climbs up her back. The text advertises a sanitarium for the cure of syphilis; it reads "Sifilis. Curacion Absoluta y Radical en el Sanatario Para Sifiliticos . . . ." See Marilyn McCully, *Els Quatre Gats; Art in Barcelona Around 1900.* Exhibition Catalog (Princeton: Princeton U. Press, 1978), No. 14.

3. FETE PARISIENNE, Anonymous, France, 1902. Ars Medica (Philadelphia Museum of Art) Collection. A poster advertising a series of Parisian events for the benefit of cholera victims. The illustration shows four figures--in the foreground, a woman is kneeling on a broad pedestal and bending over to hold a young cholera victim in her arms. In the rear is a torso of an angel and a woman looking toward heaven. See W. H. Helfand, *Medicine & Pharmacy: 100 Years of Poster Art* (Albany, 1981), No. 25.

4. WALTHAM HOSPITAL FAIR, by C.W. Reed, U.S.A., 1896. Helfand (New York) Collection. A poster showing an Angel, designed for a fund-raising event.

5. LA JOURNÉE DE PASTEUR, by Henri Rapin, France, 1923. NLM, Ars Medica (Philadelphia Museum of Art) Collections. A poster to raise money for research at the Institut Pasteur. The poster shows various illustrations of Pasteur designed by several artists, and the public is urged by the text to purchase these images. Exhibited in "In Time Of Plague," American Museum of Natural History, New York, 1987.

6. SOLDAT. LA PATRIE COMPTE SUR TOI . . ., by Théophile-Alexandre Steinlen, France, 1916. Ars Medica (Philadelphia Museum of Art) Collection. The text is written on a tombstone, and presents a dramatic appeal to French soldiers to keep strong for their country, and to resist those seductions in the street which risk exposure to an illness as "dangerous as war" leading to a "useless death without honor." The symbols are a woman embracing a soldier, a sick soldier in a hospital, a skull and crossbones, etc.

7. L' HECATOMBE. LA SYPHILIS, by Louis Raemakers, Belgium, c. 1916. Ars Medica (Philadelphia Museum of Art); U. of Wisconsin Medical School Library Collections. A woman with spider-like hair, wearing a black cloak, stands among rows of graves. She holds a skull in her hands in this powerful illustration of the evils of syphilis. See D. Dooijes, & P. Brattinga, *A History of the Dutch Poster, 1890-1960* (Amsterdam, 1968), no. 131.

8. LA SYPHILIS EST UN FLEAU SOCIAL. SES VICTIMES SONT INNOMBRABLES, by Theodoro, France, c. 1930. Ars Medica (Philadelphia Museum of Art) Collection. A man and woman kiss; behind them is a grinning skull. A lengthy text appears below the illustration, and a line at the bottom warns that each victim must be cured and avoid transmitting the disease to others. Exhibited in "In Time of Plague," American Museum of Natural History, New York, 1987.

YOU DON'T HAVE TO BE A QUEENIE TO GET AIDS
AN AIDS STORY
Mail
BOOTY HEROS BIG DAY!
A MAN HAS SEX...
T'S BAR
WITH SOMEONE WHO HAS AIDS
HE GOES BACK TO HIS WIFE...
WHO GETS AIDS FROM HIM
THEY ALL GET VERY, VERY SICK
A I D S
THE END
YOU CAN'T CURE AIDS, YOU CAN ONLY BE CAREFUL! USE A CONDOM

95. You Don't Have to be a Queenie to Get AIDS.

An Australian drive to reach people in the Aboriginal community with messages about AIDS used a comic strip to tell a simple story on the deadly nature of the disease. (Courtesy of National Library of Medicine Collection.)

9. DOS INTRUSOS QUE, MUY A MENUDO, FORMAN PARTE DEL CORTEJO NUPCIAL, by Lucien Achille Mauzan, France, c. 1905. Helfand (New York) Collection. A bride and bridegroom are attended by two figures of death, one labeled "Blenorragia" and the other "Sifilis". Spanish text, the poster probably intended for use in Argentina.

10. V.D. HELLO BOY FRIEND, COMING MY WAY?, by Reginald Mount, England, c. 1943. The illustration is of a skull, with an orchid for a hat. Below the title and illustration is a lengthy text warning of the 'easy' girl friend. See Anthony Rhodes, *Propaganda* (New York, 1976), p.129; Anon., *Paper Bullets: Great Propaganda Posters, Axis & Allied Countries, World War II* (New York, 1977), No. 7.

11. JUKE JOINT SNIPER, by Ferree, U.S.A., c. 1942. NLM Collection. A prostitute stands in front of a dance hall, lighting a cigarette. The title is on the top and at the bottom "Syphilis and Gonorrhea."

12. EASY TO GET, by Charles Casa, U.S.A., c. 1943. NLM Collection. The illustration is of a prostitute leaning against a brick wall. The text is brief: "Easy to get. Syphilis and Gonorrhea."

13. SHE MAY LOOK CLEAN BUT, Anonymous, U.S.A., c. 1944. NLM Collection. The illustration is of a pretty woman, with three service-men walking by. The text continues, "Pick-ups, 'Good Time' Girls, Prostitutes Spread Syphilis and Gonorrhea." See A. Brandt, *No Magic Bullet* (New York, 1985), after p. 164.

14. V D DON'T GAMBLE, Anonymous, U.S.A., c. 1944. Museum of Modern Art (New York) Collection. A pair of dice, one labeled "V" and the other "D." Published by U.S.N. Bureau of Naval Personnel Training Aids, No. VD-11.

15. V E, V J, V D, by Robert Bode, U.S.A., 1945. NLM Collection. Three parts, the top two showing smiling sailors with the captions "V E" and "V J", but a frowning sailor in the bottom portion with "V D."

16. STAMP OUT V D, Anonymous, U.S.A., c. 1943. NLM Collection. The illustration shows a foot about to walk on the letters "V D". At the bottom of the poster the words "Venereal Disease" spell it out even more clearly.

17. V D CAN BE CURED BUT THERE'S NO MEDICINE FOR REGRET, by Robert Bode, U.S.A., 1945. NLM Collection. The illustration is of a sailor; there is no text other than the title. See A. Brandt, *No Magic Bullet* (New York, 1985), after p.164.

18. I SHOULD HAVE GONE TO THE PRO STATION, by Robert Bode, U.S.A., 1944. NLM Collection. A sailor wearing a dunce cap writes the title on a blackboard over and over again. Published by Bureau of Medicine & Surgery, U.S. Navy, VP-13.

19. NOW, WHAT WAS I SUPPOSED TO REMEMBER?, by Woodcock, U.S.A., 1944. NLM, Landauer Collections. A forlorn looking sailor asks himself the question of the title as he approaches a Pro Station. Published by Bureau of Medicine & Surgery, U.S. Navy, VP-8.

20. TAKING V D HOME TOO, SAILOR?, by Robert Bode, U.S.A., 1945. NLM Collection. A sailor, carrying a duffle-bag walks in the direction of a sign labeled "To Trains." There is no text other than the title. Published by NavMed 893, Bureau of Medicine & Surgery, U.S. Navy, VP-22.

21. PLEASE BE CAREFUL, by Woodcock, U.S.A., 1944. NLM Collection. A comic strip, in nine sections, warning sailors to use care and prevent infection from venereal disease. Published by Bureau of Medicine & Surgery, U.S. Navy, VP-7.

22. THERE'S NO PLACE . . ., by Robert Bode, U.S.A., 1944. NLM Collection. A comic strip in 12 parts pointing out that avoiding women in all countries, including the U.S.A., is essential.

23. FOOL THE AXIS -- USE PROPHYLAXIS, by Arthur Szyk, U.S.A., 1942. Mussolini, Tojo and Hitler are shown, the latter two holding syringes. At the bottom "Prophylaxis Prevents Venereal Disease" and the note that the publisher is John Wyeth & Brother, Inc., Philadelphia.

24. V D -- AMERICAN SOLDIER COULD CATCH IT WITH EASE, by Arthur Szyk, U.S.A., 1942. Hitler, walking with Mussolini and Tojo, notes that "But--Prophylaxis Prevents Disease," as an answer to the comment from Tojo that "American soldier could catch it with ease." The poster was published by John Wyeth and Brother, Philadelphia.

25. FIGHT THE PERIL BEHIND THE LINES, Anonymous, U.S.A., 1943. A mosquito can be seen against the background of a full moon; it is observed by a soldier holding a tommy-gun. The text notes after the title, "The malaria Mosquito is more Deadly than the Enemy."

26. NO HOME REMEDY OR QUACK EVER CURED SYPHILIS OR GONORRHEA, by Karsakov, U.S.A., 1944. NLM Collection. A man, made up of newspaper clippings, including quack advertisements, headlines, etc. pours a dose of medicine on a spoon. The text, at the bottom of the poster, continues "See your doctor or health officer." Published by U.S. Public Health Service.

27. GONORRHEA CAN BE CURED, Anonymous, U.S.A., c. 1943. NLM Collection. A sick patient is crossed out at the top of the poster, and a healthy worker is shown as the major illustration. The text continues after the title "Quickly, Cheaply,

Painlessly with New Drugs. See Your Doctor or Health Officer."

28. PROSTITUTION SPREADS SYPHILIS AND GONORRHEA, by Karsakov, U.S.A., c. 1935. Museum of Modern Art (New York) Collection. The illustration is a small woman behind whom is a lengthy shadow. There is no additional text. Published by U.S. Public Health Service, No. VD-16.

29. DEFENDEZ VOUS CONTRE LA SYPHILIS, Anonymous, France, c. 1918. Helfand (New York) Collection. A shield is used to fend off a mask on the top of which is the label "Syphilis." The poster was published by the Ministre de l'Hygiène.

30. KNOW FOR SURE—GET A BLOOD TEST FOR SYPHILIS, by Karsakov, U.S.A., 1944. NLM, Museum of Modern Art (New York) Collections. A drawing of a man with a tourniquet on his arm is the background for the text. Published by U.S. Public Health Service, N. 13.

31. LA SYPHILIS EST CURABLE, by Leo Fontan, France, c. 1935. Helfand (New York), Institut Fournier (Paris) Collection. The illustration is divided into two parts, one showing a physician giving an injection and the other a healthy family. The text is extensive, with guidance on what to do and where to go listed on each side, top and bottom of the illustration.

32. COUGHS AND SNEEZES SPREAD DISEASES, by H.M. Bateman, England, c. 1940. Helfand (New York) Collection. A woman sneezes inside a draper's shop, causing others present to react with surprise. The text is similar to three others in this series.

33. DIPHTHERIA IS DEADLY, Anonymous, England, c. 1930. Helfand (New York) Collection. The illustration is of a smiling baby. At the bottom of the poster, the text reads "Immunisation protects. Ask at your Local Council Offices or Welfare Centre."

34. OUDERS! BEHOEDT UW KINDEREN VOOR DIPHTERIE . . ., Anonymous, Belgium, 1923. Helfand (New York) Collection. The illustration shows a hairy hand attacking the throat of a frightened child in this poster warning of the necessity to immunize against diphtheria.

35. POLIO RESEARCH. A LIGHT IS BEGINNING TO DAWN, by Herbert Bayer, U.S.A., 1949. Museum of Modern Art (New York) Collection. A hand holds a test tube. At the bottom of the poster, the text notes the organization publishing it, "National Foundation for Infantile Paralysis, Inc."

36. ITALIANI, AIUTATE LA CROCE ROSSA NELL'ASSISTENZA AI TUBERCOLOSI, by Basilio Cascella, Italy, c. 1920. Ars Medica (Philadelphia Museum of Art) Collection. A Red Cross nurse uses a daggar to attack a monster crawling on a globe. Exhibited in "In Time of Plague," American Museum of Natural History, New York, 1987.

37. CON QUESTE ARMI VINCIAMO TUBERCULOSI, by T. Corbella, Italy, c. 1920. Ars Medica (Philadelphia Museum of Art) Collection. Swords bearing methods to combat tuberculosis attack a hooded death figure. The measures, cleanliness, sun, air, rest, proper food, hygiene and perseverence assure that " . . . . with these arms we shall conquer tuberculosis." Exhibited in "In Time of Plague," American Museum of Natural History, New York, 1987.

38. ECRASEZ LA TUBERCULOSE ET SAUVEZ L'ENFANCE, by Lionetto Cappiello, France, c. 1925. Ars Medica (Philadelphia Museum of Art) Collection. A woman holds her child above her as she steps on a serpent. Other than the title, there is no additional text.

39. AYEZ CONFIANCE! LE BON AIR ET LES BONS SOINS VOUS RENDRONT LA SANTE, by Louis Raemakers, Belgium, c. 1920. Rockefeller Archive Collection. A nurse stands near a man resting in bed.

40. L' AIGLE BOCHE SERA VAINCU. LA TUBERCULOSE DOIT L'ETRE AUSSI, by George Dorival, France, 1917. NLM, Rockefeller Archive Collections. A sword has pierced the German eagle. At the top is "2 Fleaux—Le Boche la Tuberculose."

41. LA VISITEUSE D'HYGIÈNE EST L'AUXILIAIRE DU MEDECIN . . ., by Auguste Leroux, France, c. 1917. Rockefeller Archive Collection. A nurse carrying a child. The text continues, ". . . et des oeuvres sociales dans la croisade contre la tuberculose et la mortalité infantile. Soutenez-La!" See A.C. Lelieur, ed., *La Femme dans la Realite Quotidienne. Affiches 1890, 1930.* (Paris: Société des Amis de la Bibliothèque Forney, 1979), No. 18.

42. THE NEXT TO GO. FIGHT TUBERCULOSIS, Anonymous, U.S.A., c. 1925. Helfand (New York), Institute of the History of Medicine, Johns Hopkins University (Baltimore) Collections. A poster for the Red Cross Tuberculosis seal campaign. As a Red Cross nurse, a woman and a child watch, a man pushes a spectre, symbolizing tuberculosis, out the door.

43. ACHETEZ LE TIMBRE ANTITUBERCULEUX, by Wilquin, France, c. 1942. Helfand (New York) Collection. A boy with his arms raised stands before a school in front of which are children exercising and swimming. The text reads "Sauvez la Jeunesse. Achetez le Timbre Antituberculeux," and at the bottom "La Tuberculose est Evitable."

44. ACHETEZ LE NOUVEAU TIMBRE ANTITUBERCULEUX, Anonymous, France, 1934. NLM Collection. The illustration is of an enlarged stamp issued with Calmette's portrait, under which is written "Calmette Sauveur des Tout-Petits."

45. JOURNÉE NATIONALE des TUBERCULEUX, by Lucien Lévy-Dhurmer, France, c. 1920. Ars Medica (Philadelphia Museum of Art) Collection. A fund-raising poster for tuberculosis victims of World War I. A soldier holding a walking stick looks out on an impressionistic sea. A blossoming tree fills the sky and a village can be seen in the distance. See W. H. Helfand, *Medicine & Pharmacy: 100 Years of Poster Art* (Albany, 1981), No. 32.

46. JOURNÉE NATIONALE des TUBERCULEUX, by Abel Faivre, France, c. 1918. Ars Medica (Philadelphia Museum of Art) Collection. One of a series of posters designed to raise funds for tuberculosis victims of the First World War. A soldier looking towards the sky is aided by a nurse, whose hands are on his shoulders. At the bottom "Sauvons-les." See W. H. Helfand, *Medicine & Pharmacy: 100 Years of Poster Art* (Albany, 1981), No. 31.

47. BLESSES DE LA TUBERCULOSE, by Roll, France, c. 1920. Helfand (New York), Library of Congress Collections. A poster issued by the Comité Central d'Assistance aux Militaires Tuberculeux, showing an invalid resting on a chair, its back raised and his feet elevated; he is attended by a nurse.

48. LA COURSE A LA MORT, by Charles Jodalet, France, 1926. Ars Medica (Philadelphia Museum of Art) Collection. A poster issued by the general commission for propaganda of the National Office of Social Hygeine as part of the campaign of the National French League against Venereal Disease. The macabre scene shows death looking through a magnifying glass at three horses running a race. The winner is Tuberculosis, closely followed by Syphilis, while Cancer is a distant third. The text further notes that

tuberculosis kills 150,000 French citizens per year and that syphilis kills 140,000. Cancer, it is noted, shows only 40,000. See W. H. Helfand, *Medicine & Pharmacy: 100 Years of Poster Art*, (Albany, 1981), No. 11.

49. GUERRA ALLA MOSCHE ! . . ., Anonymous, Italy, c. 1910. Ars Medica (Philadelphia Museum of Art) Collection. A procession of flies, as airplanes, the first one holding a bomb labeled "Microbi" which it drops on a crowd of people. A second bomb is falling; it is labeled "Germi della Tisi," and a third, "Malatie" is breaking up. Exhibited in "In Time of Plague," American Museum of Natural History, N.Y., 1987.

50. TAKE COVER AGAINST ATTACK, Anonymous, England, 1943. Ars Medica (Philadelphia Museum of Art) Collection. A large mosquito with a swastika on its tail dives towards the bottom of the poster. The text reads "Take treatment, Cover arms & legs, Against bites after dusk, Attack all mosquitos."

51. I'M LOOKING FOR YOU, by Abram Games, England, c. 1943. Ars Medica (Philadelphia Museum of Art) Collection. A large fly is superimposed on a face; the wings of the insect are the eyes of the face, and they are labeled "Fever" and "Malaria." At the bottom the text reads "Protect Yourself Against Mosquitos. You Owe it to Yourself--Your Comrades--Your Efficiency."

52. THEY CARRY DISEASE FROM FILTH TO FOOD, by Abram Games, England, c. 1942. Ars Medica (Philadelphia Museum of Art) Collection. Flies, including one huge example, are at the top of the poster and a plate of food beneath them. The headline "Kill all Flies" appears after the title, and at the bottom "You Owe it to Yourself--Your Comrades--Your Efficiency."

53. CANCER DANGER SIGNALS, by Fellnagel, U.S.A., c. 1940. Museum of Modern Art (New York) Collection. A scientist uses a pointer to point to two large abstract figures of a man and woman. On the side is a list of five points to look for, "lumps in breast, irregular bleeding, etc." Published by U.S. Public Health Service, No. 4.

54. CANCER. EARLY DIAGNOSIS WOULD SAVE 50,000 LIVES EVERY YEAR, by Fellnagel, U.S.A., c. 1935. Museum of Modern Art (New York) Collection. A photograph of a crowd of men in an outline of a tree, with an abnormal growth coming out of the trunk. Published by U.S. Public Health Service, No. 1.

55. NO HOME REMEDY EVER CURED CANCER, Anonymous, U.S.A., c. 1940. Museum of Modern Art (New York) Collection. The illustration shows the head of a worried woman holding a teaspoon to her mouth. The full text reads "No home remedy, no tonic, no special diet, no salves, no powders, no pills ever cured, only surgery, x-ray or radium can cure cancer." Published by American Cancer Society.

56. CANCER FROM 7TH TO 2ND PLACE, by Fellnagel, U.S.A., c. 1940. Museum of Modern Art (New York) Collection. An arrow, signifying increase, is shown superimposed on an outline of a man. The text reads "Cancer 7th to 2nd place among the big killers--in last 25 years." Published by U.S. Public Health Service, No. 2.

57. ALCOHOLISMO NO. 424A. Anonymous, France, c. 1910. Julien (Paris) collection. Three scenes of the effect of alcoholism on soldiers, a victim being tried by a military court, etc. Spanish text.

58. AH! QUAND SUPPRIMERA-T-ON L'ALCOOL?, by Chavennez, France, c. 1920. NLM Collection. A woman and her two children admonish a man sitting at a

table with a bottle of wine in his hand. Published by the Union des Françaises Contre L'Alcool. See Alain Weill, ed., *L'Affiche en Occident de ces Origines a nos Jours* (Paris & Kyoto, 1978), No. 37.

59. AH! SI L'ON AVAIT SUPPRIME L'ALCOOL?, by Chavennez, France, c. 1920. NLM Collection. A soldier watches a drunken man standing at a street light. Published by the Union des Francaises Contre L'Alcool.

60. LIGUE POPULAIRE ANTI-ALCOOLIQUE, by Théophile-Alexandre Steinlen, Belgium, 1920. A bartender stands behind a shelf of glasses, his hands on a pitcher. There is a lengthy text below the illustration. The illustration is the same as one on the cover of L'Assiette au Beurre, 11 July, 1901. See R. Bagniel, & C. Zagrodski, *Steinlen Affichiste* (Paris, 1986), No. 75.

61. SKIN CARE BY HEROIN, Anonymous, Great Britain, 1986. NLM Collection. A photograph of the face of a young girl, her face covered with scars and blotches. Text below the title is "Take heroin and before long you'll start looking ill, losing weight and feeling like death. So, if you're offered heroin, you'll know what to say. Heroin screws you up." See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 46.

62. THIS IS THE LAST OF HIS MUM'S WEDDING RING, Anonymous, Great Britain, c. 1986. NLM Collection. Hands holding a piece of paper on which is some white powder. The text below the photograph is "No-one who starts taking heroin thinks they'll ever steal for it. But they do. Smack isn't worth it." Published by the Department of Health and Social Security. See W. H. Helfand *To Your Health* (Bethesda, 1990), No. 44.

63. SMACK CAN LEAVE A SCAR ON YOUR WHOLE FAMILY, Anonymous, Great Britain, c. 1986. NLM Collection. Photograph of an outstretched arm, scarred by repeated injections. These are labeled "Mom's housekeeping, Alison's Walkman," etc. A line at the bottom repeats the phrase in the previous poster. Published by the Department of Health and Social Security. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 45.

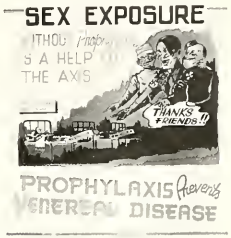
64. FACTS ABOUT AIDS, Anonymous, Australia, c. 1987. NLM Collection. Text only, covering five points: Who can get AIDS? What is AIDS?, How do you catch AIDS?, You can't catch AIDS by: and How to be Safe. Published by the Commonwealth Department of Health.

65. COMBATTRE LA TUBERCULOSE, Anonymous, France, c. 1920. Rockefeller Archive, NLM Collections. There are 15 small illustrations, in four groups, how tuberculosis spreads, methods to combat it, its enemies and precautions to take.

66. GO AHEAD! SPREAD THE WORD! YOU CAN'T GET AIDS FROM ALASKA'S STATE BIRD!, Anonymous, U.S.A., c. 1989. NLM Collection. A drawing of a mosquito. At the bottom, the text notes that AIDS is not spread by mosquitos, and that the poster was developed by teenagers in Alaska. Published by Alaska AIDS Prevention Project, Alaska Department of Health and Social Services.

67. NONE OF THESE WILL GIVE YOU AIDS, Anonymous, U.S.A., c. 1988. NLM Collection. Four photographs, of a handshake, a place setting, a toilet seat, and a hand reaching for a doorknob emphasize everyday occurrences that are risk-free from AIDS infection. An edition in Spanish also exists. Published by the AIDS Institute, New York State Health Department.

68. GET THE ANSWERS. Ask ask ask ask about AIDS, Anonymous, U.S.A., c. 1987. NLM Collection. The Word "Ask" appears in different type-faces and with varying orientations, and a telephone



96. Sex Exposure Without Prophylaxis Is a Help to the Axis.

A World War II poster stressing prophylaxis against venereal disease, suggested that the lack of it helps the Axis powers—Germany, Italy and Japan. (Courtesy of The William H. Helfand Collection.)

number is provided for further information. Published by the AIDS Action Committee, Massachusetts.

69. DON'T FORGET THE CHAPTER ON AIDS, by Norman Rockwell, U.S.A., c. 1988. NLM Collection. The AIDS Action Committee used an earlier Norman Rockwell drawing of a father giving the "facts of life" to his son to call attention to the necessity of discussing AIDS.

70. DON'T LISTEN TO RUMORS ABOUT AIDS. GET THE FACTS, Anonymous, U.S.A., c. 1987. NLM Collection. A photograph of the singer Patti LaBelle, with a phone number for further information. Published by the U.S. Public Health Service and the American Red Cross.

71. L'HOMME LE PLUS FORT DU MOND DECLARE ..., Anonymous, France, c. 1935. NLM Collection. An illustration of the boxer, Ch. Rigoulot, in a fighting pose. The text continues "le secret de ma force. Pas d'alcool." Published by the Comité National de Defense contre l'Alcoolisme.

72. EL RIESGO ES DE TODOS, Anonymous, Mexico, c. 1988. NLM Collection. A drawing, showing the bottoms of a dead person's feet, in a morgue. The text continues at the bottom, "El SIDA. Si ... da." Published by the Direccion General de Epiedemiologia.

73. AIDS. GET THE FACTS. PEOPLE ARE DYING TO KNOW, Anonymous, U.S.A., 1986. NLM Collection. A row of gravestones supports the words in the title. Published by the Pharmacist's Planning Service, Sausalito, California.

74. ALERTA SIDA, by R. Cadrena, Bolivia, c. 1988. NLM Collection. The letters S, I, D, and A are filled in with a drawing of an anguished figure. At the bottom, the phrase "Es SIDA es una amenaza. Informate! Published by the Ministerio de Prevision Social y Salud Publica. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 58.

75. PREVENGA ESTA TERRIBLE ENFERMEDAD EL SIDA, Anonymous, U.S.A., c. 1987. NLM Collection. A drawing of a skull with an injection syringe in its mouth, giving answers to several key questions about AIDS. Published by the Nipomo, California, Community Medical Center.

76. LE SIDA. EVITEZ LES PARTINAIRES FACILES, Anonymous, Mauritius, c. 1989, NLM Collection. A poster warning of danger in trafficking with prostitutes. The illustration is a cartoon drawing of six women attempting to entice a man. Published by the Health Education Unit, Ministry of Health.

77. A GALA NIGHT FOR SINGING, by Paul Davis, U.S.A., 1985. NLM, Ars Medica (Philadelphia Museum of Art) Collections. A fire eating clown. Published as a fund raiser for the East End Gay Organization (Easthampton, New York).

78. AIDS PREVENTION by David Lance Goines, U.S.A., 1985. NLM, Ars Medica (Philadelphia Museum of Art) Collections. The illustration is of a snake wound around an apple on a tree. Published to support the Berkeley Student Health Service. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 59; Exhibited in "In Time of Plague," American Museum of Natural History, New York, 1987.

79. AIDS IS A WHITE MAN'S DISEASE, Anonymous, U.S.A., c. 1987. NLM collection. One of four posters in a series of "Famous Last Words" published by People of Color Against Aids, Seattle. Text only.

80. A CASUAL SEXUAL RELATIONSHIP IS NOT WORTH IT, Anonymous, Seychelles, c. 1988. NLM Collection. Five drawings of sporting events, etc. The text continues, "In fact, it might give you AIDS —which kills. A responsible lifestyle will

97. A Rubber Is a Friend in Your Pocket.

A drawing by Michael Sabanosh, with text in both English and Spanish, was developed by the Gay Men's Health Crisis to emphasize the value of using condoms. (Reproduced with permission of GMHC. Courtesy of National Library of Medicine Collection.)

fight AIDS." Published by the Ministry of Health and Social Services.

81. YOU'RE SAFER WITH ONE PARTNER, by Ras. Gitten, Trinidad and Tobago, 1987. NLM Collection. A drawing of a man and woman sitting together on a bench. At the bottom, "Avoid AIDS." Published by the Ministry of Health, Welfare and Status of Women.

82. MAG-INGAT SA AIDS, Anonymous, Philippines, c. 1987. NLM Collection. A poster in a campaign directed to prostitutes, advising them to supply condoms. The drawing shows a silhouette of a man and a woman before a hotel; the words on the bottom warn "Huwag pumayan kung walang kondom." Published by the Department of Health, Manila.

83. SHE HAS HER FATHER'S EYES AND HER MOTHER'S AIDS, Anonymous, U.S.A., 1988. NLM Collection. A photograph of a child (versions exist for both white and black children), with added text "Before you get pregnant, find out if you need to be tested." Published by Clement Communications, Inc.

84. DOES SHE OR DOESN'T SHE?, Anonymous, U.S.A., 1988. NLM Collection. Photograph of a blonde woman, her chin resting on her wrist. The copy reads "People can carry the AIDS virus, but show no symptoms. Don't take chances. Get tested before you become sexually involved." Published by Clement Communications, Inc.

85. CUIDAS DE LOS HIJOS. CUIDAS DE EL., Anonymous, U.S.A., 1988. NLM Collection. A hispanic woman standing with arms folded. A similar poster exists in English, with an illustration of a white woman. The text continues "Cuidate a ti misma. Insiste en condones." Published by the New Haven Women's AIDS Coalition of the Mayor's Task Force on AIDS.

86. DOAR SANGUE E UM ATO DE AMOR, Anonymous, Brazil, c. 1987. NLM Collection. A blood collecting plastic container in the shape of a heart. Published by the Pan American Health Organization for the Ministerio da Previdencia e Assistencia Social. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 32.

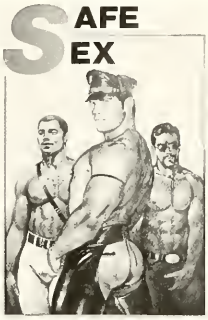
87. THIS IS ALL YOU'LL EVER GET FROM GIVING BLOOD, Anonymous, U.S.A., 1988. NLM Collection. A glass of orange juice, with oranges in the background. The text continues, "You won't get AIDS--the needles are sterile. So give blood and save lives." Published by Clement Communications, Inc. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 31.

88. STOP AIDS, Anonymous, Switzerland, 1988. NLM Collection. A silhouette of a man and a woman next to a palm tree; the moon is a condom. Other scenes of London, Paris, Rio and Rome also show the moon as a condom. Published by AIDS-Hilfe Schweiz.

89. EF PU TEKUR AHAETTU I KYNLIFI SKALTU HALDA HENNI I LAGMARKI, Anonymous, Iceland, c. 1987. NLM Collection. The title is "Keep the Risks of your Sex Life to a Minimum" Thirty-four photographs of people with condoms; some are humorous, some serious. The poster is designed to show that condoms are a part of daily life. Published by the Department of Public Health. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 64.

90. KEEP A RUBBER ON HAND, Anonymous, U.S.A., 1987. NLM Collection. A poster for National Condom Week, Feb. 14-21. The illustration is a photograph of a hand, with a condom on each outstretched finger.

91. I DON'T NEED TO WEAR ONE OF THOSE, Anonymous, U.S.A., c. 1987. NLM Collection. A small photograph of a condom, with most of the poster taken by the title. Published by the People of



ARE YOU MAN ENOUGH?

102. Safe Sex. Are You Man Enough?

In its program to call attention to the necessity of practicing safe sex, a Los Angeles group, The CORE Program, commissioned several drawings of gay men by Bruce Rapp. (Reproduced with permission of The CORE Program, Los Angeles. Courtesy of National Library of Medicine Collection.)

Color Against AIDS, Seattle, as one of four in a series of "Famous last Words." (See also No. 79.)

92. LIFE INSURANCE FROM 15p, Anonymous, Great Britain, c. 1988. NLM Collection. The illustration is a condom in a pouch. A line at the bottom of the poster reads "AIDS. You know the risks. The decision is yours." Published by the U. K. Health Education Authority.

93. DON'T DIE OF EMBARRASSMENT, Anonymous, U.S.A., c. 1987. NLM Collection. A man and a woman embracing. The text below the title is "AIDS is a killer. Use a condom." Published by Turtledove Communications, Inc.

94. CONDOMAN SAYS: USE FRENCHIES, Anonymous, Australia, c. 1988. NLM Collection. A comic strip character says "Don't be shame. Be game." Published by the Commonwealth Department of Community Services and Health, Aboriginal Health Workers of Australia. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 63.

95. YOU DON'T HAVE TO BE A QUEENIE TO GET AIDS, Anonymous, Australia, c. 1988. NLM Collection. A comic strip with six panels illustrating the danger of AIDS infection from multiple sexual partners. The line at the bottom reads "You can't cure AIDS, you can only be careful. Use a condom!" Published by Commonwealth Department of Community Services and Health, NACAIDS, Aboriginal Health Workers of Australia (Queensland).

96. SEX EXPOSURE WITHOUT PROPHYLAXIS IS A HELP TO THE AXIS, Anonymous, U.S.A., c. 1942. Helfand (New York) Collection. The illustration shows Hitler, Tojo and Mussolini who say "Thanks Friends!!" as they look at hospital beds in a "Venereal Disease Ward." At the bottom the text reads "Prophylaxis Prevents Veneral Disease." See A. Brandt, *No Magic Bullet* (New York, 1985), after p. 164.

97. A RUBBER IS A FRIEND IN YOUR POCKET, by Michael Sabanosh, U.S.A., 1987. NLM Collection. A drawing of a man's torso, showing the outline of a condom in his pocket. The text is repeated in Spanish below the illustration. Published by the Gay Men's Health Crisis, New York.

98. DIE NEUE INTIM-LINIE FUR DEN MANN, Anonymous, Switzerland, c. 1988. NLM Collection. Photographs of a man's cuff links, necktie, bracelet and condoms and a tube of lubricant. Published by the Hot Rubber Company, Zurich.

99. HELP PREVENT DESPAIR. CARE, by George Delany, U.S.A., 1987. NLM Collection. Photograph of a large condom, with the title words in small type alongside it.

100. YOU WON'T BELIEVE WHAT WE LIKE TO WEAR IN BED, Anonymous, U.S.A., 1986. NLM Collection. Photograph of two men (versions exist for either black or white men) ready to undress. A line at the bottom notes "Use condoms. There's living proof they stop AIDS." Published by HERO (Health Education Resource Organization), Baltimore.

101. SAFE SEX. ARE YOU MAN ENOUGH?, by Bruce Rapp, U.S.A., c. 1987. NLM Collection. Drawing of a man holding a condom in his right hand. Copyright from The CORE Program, Los Angeles. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 60.

102. SAFE SEX. ARE YOU MAN ENOUGH?, by Bruce Rapp, U.S.A., c. 1987. NLM Collection. Drawing of three muscular men, one wearing a military cap. Copyright from The CORE Program, Los Angeles. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 61.

103. NO LESS A MAN FOR PLAYING SAFE, Anonymous, U.S.A., c. 1987. NLM

109. I.V. Drug Users: Don't Give AIDS to Your Unborn Baby.

In their attempt to reach women of childbearing age who might become pregnant, the Georgia Department of Human Resources published this moving poster of a fetus holding a syringe. (Courtesy of National Library of Medicine Collection.)

LASST MICH NICHT ALLEIN
Niemand darf mit Aids allein gelassen werden. Denn Aids geht uns alle an, weil immer mehr Menschen davon betroffen sind. Als Infizierte, Erkrankte, Angehörige und Freunde. Wichtig ist jetzt Verständnis und Unterstützung für Menschen, die an einer bisher unheilbaren Krankheit leiden. Wenden Sie sich bitte an Ihren Arzt, die Beratungsstellen und das Gesundheitsamt, wenn Sie Rat und Hilfe brauchen.
GIB AIDS KEINE CHANCE

114. Lasst Mich Nicht Allein.

A German poster suggesting the need for compassion for AIDS patients. (Courtesy of National Library of Medicine Collection.)

Collection. Photograph of the muscular torso of a man, with the copy in small type in the lower left corner. Published by P S Atlanta.

104. SEXCESS. OUR WORKSHOP IS POSITIVELY EROTIC, Anonymous, U.S.A., c. 1988. NLM Collection. Cartoon drawing of two men, their speech in baloons in comic strip style. A lengthy text gives details of a "sexual enrichment workshop for gay and bisexual men." Published by the Colorado AIDS Project.

105. THERE MUST BE 50 WAYS TO PLEASE A LOVER . . ., Anonymous, U.S.A., c. 1988. NLM Collection. Fifteen photographs, mainly of homosexual men in a variety of activites. A final photograph is of a package of condoms and a jar of lubricant. Published by the Tuscon AIDS Project.

106. TASTE, WATCH, TOUCH, EXCITE, EXPLORE, IMAGINE, Anonymous, U.S.A., c. 1988. NLM Collection. Six drawings of men, each accompanying copy on one of the themes in the title. The poster is designed to be cut so that six individual posters can be made; each proposes a method of practicing safe sex. Published by the Colorado AIDS Project.

107. HEY MAN! NO SHARING, Anonymous, U.S.A., c. 1988. NLM Collection. A drawing by an intravenous drug user of two men; the title is spoken by one of them. Published by the Brooklyn (N.Y.) AIDS Task Force.

108. MIT GEBRAUCHTEN NIE!, Anonymous, Switzerland, c. 1987. NLM Collection. A large syringe with a bent needle, at the point of which are the words "Stop AIDS." Published by AIDS-Hilfe Schweiz.

109. I.V. DRUG USERS: DON'T GIVE AIDS TO YOUR UNBORN BABY, Anonymous, U.S.A., c. 1988. NLM Collection. A large syringe cradled in the arms of a well-developed fetus. The text continues, "Get the test before having a baby." Published by the Georgia Department of Human Resources.

110. HEADS YOU LIVE, TAILS YOU GET AIDS, Anonymous, Great Britain, 1987. NLM Collection. A hand holding a syringe. The hand as well as a handkerchief on a table is covered with blood. A line at the bottom reads, "In some parts of the country, as many as 1 in 2 drug injectors carries the AIDS virus. Don't inject AIDS." See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 66.

111. IF YOU GET INTO INJECTING, WHAT'S GOING TO GET INTO YOU?, Anonymous, Great Britain, 1987. NLM Collection. Photograph of a syringe and a spoon on a bloody cloth. A line at the bottom reads, "The AIDS virus can live on a needle, syringe or equipment. Never share, not even once. Don't inject AIDS."

112. AIDS. SHARING NEEDLES IS JUST ASKING FOR IT, Anonymous, U.S.A., c. 1987. NLM Collection. Two hands, one a skeletal hand holding a syringe; on the other side an outstretched hand ready to take the syringe. Published by the National Advisory Committee on AIDS. See W. H. Helfand, *To Your Health* (Bethesda, 1990), No. 67.

113. IT WON'T KILL YOU TO SPEND TIME WITH A FRIEND WHO HAS AIDS, Anonymous, U.S.A., 1988. NLM Collection. Drawing of the rear view of a man sitting in a chair, elbows on his knees. The text continues, "Give him your support and compassion. He needs you." Published by Clement Communications, Inc.

114. LASST MICH NICHT ALLEIN, Anonymous, Germany, c. 1988. NLM Collection. Photograph of a man sitting on a bench. Extensive text below the title and the slogan "Gib AIDS keine chance." Published by Die Bundesgesund Heitsministerin.

I HAVE AIDS
Please hug me
I can't make you sick
AIDS HOT LINE FOR KIDS
CENTER FOR ATTITUDINAL HEALING
19 MAIN ST, TIBURON, CA 94920, (415) 435-5022

115. I Have AIDS. Please Hug Me. I Can't Make You Sick.

The child's drawing is an effective means for communicating information on an "AIDS hotline for kids." (Reproduced with permission of the Center for Attitudinal Healing. Courtesy of National Library of Medicine Collection.)

115. I HAVE AIDS. PLEASE HUG ME . . . I CAN'T MAKE YOU SICK, Anonymous, U.S.A., c. 1989. NLM Collection. A child's drawing of a child among flowers. Below the illustration a telephone number is given for the "AIDS hotline for kids." Published by the Center for Attitudinal Healing, Tiburon, California.

Author

William H. Helfand has recently retired after more than thirty-three years as an executive with a multinational pharmaceutical company. He is a consultant to the National Library of Medicine and the Philadelphia Museum of Art in areas relating to art and medicine. He has degrees in Chemical Engineering (University of Pennsylvania, 1948), Pharmacy (Philadelphia College of Pharmacy and Science, 1952), and was awarded degrees (h.c.) of Doctor of Humane Letters by the Albany College of Pharmacy, Union University, in 1981 and Doctor of Science by the Philadelphia College of Pharmacy and Science in 1976. Dr. Helfand has published four books: *Medicine and Pharmacy in American Political Prints* (Madison, 1978); *Medicine and Pharmacy: 100 years of Poster Art (Albany, 1981);* and with Sergio Rocchietta, *Medicina e Farmacie Nelle Caricature Politicbe Italiane* (Milan, 1982). With David Cowen, he is the author of *Pharmacy: An Illustrated History* (New York 1990). He has published a number of articles on the history of pharmacy, and on prints, caricatures, posters and ephemera relating to pharmacy and medicine in *Pharmacy in History, Medical History, Revue d'Histoire de la Pharmacie* and other journals. Exhibition of portions of his collection of prints and ephemera in the fields of medicine and pharmacy have been held in Toronto, Las Vegas, Miami, Philadelphia, New Haven (Yale University School of Medicine), Washington (Smithsonian Institution and National Library of Medicine), Paris, New York and Haarlem, The Netherlands.

In October, 1991, the Philadelphia Museum of Art will open an exhibition, "The Picture of Health," composed of objects he has donated in recent years. He has lectured at the American Museum of Natural History, British Society of Apothecaries, College of Physicians of Philadelphia, Medical College of Pennsylvania, Philadelphia College of Pharmacy and Science, Philadelphia Museum of Art, Rockefeller University, University of Pennsylvania, University of Wisconsin, Yale University School of Medicine and other institutions.

In 1986, Dr. Helfand received the Pepys Medal of the Ephemera Society, London, for outstanding contributions in the field of ephemera studies, and in 1972 he received the Kremers Award of the American Institute of the History of Pharmacy; in 1991 he will be the recipient of the Urdang Medal for distinguished historical writing from the same organization. He is a Trustee of the Medical Historical Library, Yale Medical School, New Haven; has been president of the American Institute of the History of Pharmacy, and has been elected to membership in the International Academy of the History of Pharmacy, the Nobile Collegio Chimico Farmaceutico di Roma, the Académie Nationale de Pharmacie, Paris, and the Academy of Pharmaceutical Sciences. Dr. Helfand is presently working on a book about medical and pharmaceutical posters.

The Poster Collection at the National Library of Medicine

A few months ago, a social worker from a nearby county health department phoned to arrange an appointment to view the National Library of Medicine's (NLM) poster collection, particularly materials on drug addiction. His department was preparing to make its own set or series on this subject, aimed at a teenage audience. When he heard about the NLM collection, he assumed that it might provide some good ideas for his professional colleagues and the design staff.

This patron arrived two weeks later with four other staff members. There were 123 posters on drug abuse in the collection at that time, all in one drawer and relatively easy to review. As I showed them each poster, their interest level and enthusiasm increased. Here were posters from all over the world on the subject matter they needed: dramatic, grim posters from England; artistically sophisticated posters from America and France; simple, direct posters from Third World countries, humorous posters from Germany; all produced by health professionals very much like themselves. Their original mission, essentially to "borrow" a single poster which could send an effective message to adolescents in a Washington, D.C. suburb, was not attainable.

They were, however, able to identify sponsoring groups and institutions with similar tasks and problems. One state health department was producing particularly stylish, positive posters for an ethnically diverse audience, and this group admired their work. I confirmed that we could make a reproduction of the poster, but suggested instead that they call the people who produced it. They seemed quite enthusiastic over the prospect of establishing contact, and it seems reasonable to assume that the subsequent phone call led to useful networking and resource sharing among the two groups of social workers.

The preceding incident is a good example of how this new special collection can serve a different role from the traditional one of a picture collection, i.e., having pictures which satisfy patron needs, and producing photo reproductions.

At the other end of the chain--the sponsoring groups that initiate these posters--we have found that such groups are often surprised and

by Lucinda H. Keister

delighted to know that their work is being added to the NLM collection. Many posters obviously show much careful thought and a high level of artistic talent in their design. Small sponsoring groups are proud of these publications, but also are aware they are essentially ephemeral. They find it rewarding to have the works attain a measure of immortality by being incorporated into the special collection of a national library.

One would not expect at first blush that the mission of the National Pediculosis Association would yield the lively, charming, upbeat, and very effective posters they produce. However, their strategy to attack the stigma attached to lice resulted in just that type of poster--by their sponsoring a "National Head Lice Awareness Poster Contest" among school children. The winner of the contest, a kindergartener from Ft. Worth, Texas, produced one of the most expressive, effective drawings in our entire prints and photographs collection--a study in human frustration composed entirely of sixteen strokes of a crayon. Consequently, our holdings from this association reveal not only an appealing set of posters, but also the clever thinking behind the program.

The special collection into which these posters have come is a very old indulgence of John Shaw Billings, head of the Library of the Surgeon General of the United States Army (the predecessor of the National Library of Medicine) from 1865-1895. Archival documentation shows that Billings, when offered the opportunity to purchase large groups of engraved portraits of figures famous in medical history, was keen enough on the idea that he found the money to add this non-print material to the holdings of the Library.[1] Evidence of these acquisitions appears in the *Index Catalog of the Library of the Surgeon General's Office* in the First Series (Vol.1, pp. 271-292), with the lengthy listing under "Collection of portraits."

Portraits were not the only type of prints purchased, however. Some fine English caricatures also came into the collection. The Library's picture collection essentially remained dormant and somewhat inaccessible until the 1950s. During World War II, when the fine rare book holdings of the Army Medical Library were temporarily moved to Cleveland, Ohio, for safekeeping, these prints were still a part of the Reference Division in the red brick building on the Mall in Washington, D.C. It was not until the 1950s that the NLM's holding were properly cataloged, using its own national classification scheme, and accommodation for the small print collection can be seen in the NLM Classification Manual.[2]

Today, the Library's Prints and Photographs Collection consists of some 56,000 items and serves about 2,000 patron requests per year with over 6,000 photo reproductions. The bulk of the collection consists of portraits now numbering close to 30,000. The remainder consists of nineteenth- and twentieth- century photographs and all variety of print media (lithographs, etchings, wood engravings, etc.),

16. Stamp Out V.D.

Among the posters proliferating during World War II were those warning of venereal disease. This poster shows Uncle Sam's foot ready to step on the letters "V.D." (Courtesy of National Library of Medicine Collection.)

separated into logical physical groups: albums, images of medical institutions, fine art print material, posters, etc.

Although the collection has included some posters for many years, a special effort to expand poster holdings, and especially to collect contemporary as well as historical posters, was begun in 1987. The decision to acquire posters actively, while adding an interesting dimension to the collection, brought with it the necessity to assume an extra burden of work at a time when our small staff was busy with both their regular tasks and one major project, an effort to put the entire pictorial collection on a videodisc, linked to computerized catalog records. Consequently, there was not adequate time to prepare for the advent of the posters, which began to arrive at an amazing rate. We were immediately confronted with a problem of storage. Fortunately, there was some mapcase space available, but more importantly, the time was propitious for adding the posters to the filming queue for the videodisc. Patrons commonly entertain the assumption that they can browse through our prints and photographs collection. However, as is the case with most large still picture collections which do not have reference copies of their images, it is in reality a fatiguing and inefficient process to look directly at the picture holdings themselves. Most patrons will be much more agreeable to browsing through the collection in the comfort of a desk chair with a television monitor and videodisc player.

Two major tasks confronted me as a curator: appropriate individual storage of these posters, and the appropriate classification and cataloging procedure for them. I had one mapcase unit with ten drawers measuring 49 inches wide by 38 inches deep. I ordered two more enameled steel mapcases, the first one with much smaller, narrower drawers, the second in an intermediate size. I also plan to have a pallet constructed in the collection's storage area to accommodate the exceptionally large posters, so that they can remain in a horizontal position. This will give four storage locations to accommodate the amazing variety of sizes, and I would be reluctant to add any more locations for viewing or retrieval.

I also had to ascertain how the posters should be stored within the drawers. Fortunately I had made a trip several years earlier to the architectural drawings section of the American Institute of Architects. The curator and her assistant were extremely satisfied with their very large, heavy, 4 mil Mylar folders. This method of protecting large thin documents requires that the folder be at a minimum several inches larger than the item it holds. Leaving a generous margin of Mylar around the perimeter assures that static electricity will act to bind the margins together, keeping the folder closed and the poster from slipping around during handling. These folders can be sealed on only one side or on two adjacent slides,

making what is called an "L-seal." The L-seal folders offer more protection, but greater care needs to be taken when inserting the poster, most especially when it is fragile. These folders work well as a temporary or a long-term storage method. Rare, expensive, fragile posters are mounted on linen by a conservator, but the vast majority of our posters will be adequately protected by these custom-made, chemically inert folders. Moreover, there is no staff time spent preparing some kind of opaque folder, and no public service time spent opening up an opaque folder to look at its contents in cases where someone needs to look at the posters directly. Mylar is indeed a time-saver in visual collections, and well worth the cost.

The most interesting and challenging part of the poster project turned out to be the puzzle of how to catalog and classify them. Did they even need to be classified? I considered briefly simply numbering them consecutively. Appropriate access points could be provided through the descriptive cataloging. Other curators, especially archivists, would consider cataloging them as a whole group. However, still pictures are not searched as a group by the public that will use them, but rather as individual information documents. Furthermore, still pictures immediately become individual information documents when they are accessible on a videodisc, as our images will be.

My final decision was to group the posters by subject, and classify and catalog them individually. This would be consistent with the rest of the material in the Prints and Photographs Collection. The system begins with an NLM subject classification number, for example, WA 590 ("Health Education"). This is followed by the alpha-numeric code "C 25," which indicates a still picture group, and then individual consecutive numbers for individual images within that grouping. The code "C 25" can be varied to accommodate multiple groups. Thus, a World War II poster on venereal disease prevention would carry a typical call number, WA 590 C25 no. 83; the fifth poster to be cataloged into the alcoholism grouping has the class number WA 590 C 35 no.5. Within this augmented poster collection, the alpha-numeric codes run from "C 20 " through "C 40."

It was necessary to wait until there were about 1,200 posters to decide how to classify them into groups. Defining subject groups within large picture collections is an organic process in which the content of the material and the curator's goals interweave until appropriate size groups emerge. It is naive to impose arbitrarily a series of subject groupings on material because it is likely that these categories--however well thought out--probably will not reflect the intellectual content of the material. As I sifted through these many posters, I could see natural groupings evolve, some quickly, some slowly: mother and child care, environmental health, good nutrition, etc. Because I wanted

68. Get the Answers. Ask Ask Ask Ask about AIDS.

The AIDS Action Committee of Massachusetts used a variety of typefaces to attract attention in their drive to communicate information about AIDS. (Courtesy of National Library of Medicine)

the names of the groupings to be MeSH headings, I brought in a staff member of NLM's Indexing Section to check my preliminary title selections for these groupings. "Healthful Life Styles" then became "Health Behavior" and "Drug Addiction" is now "Substance Abuse", for example. I expanded the existing poster classification scheme and set up a numbering system which should be flexible enough to accommodate whatever changes come up. We now have twenty groupings, the largest being the outstanding posters on AIDS. The descriptive cataloging for each poster is in the MARC Visual Materials format and will carry as much information as the majority of our users will need to retrieve the item, such as subject terms, publishing and sponsoring organization, country of origin, date, and brief description of the visual.

With 3,500 posters, we already have a most impressive collection that will gain in significance as it continues to grow. The subject subgroupings contain posters from countries throughout the world, thereby providing researchers with a meaningful comparison of approaches to specific public health problems by various cultures and governments. Additionally, because the subgroups are so large, there is something to be learned both from the numbers of different countries producing posters on a given subject and also the proportional numbers of posters from individual countries within the subject groups. There are many other such research possibilities to be revealed by this large collection of public health education documents, probably as many possibilities as we will have users studying them. We are pleased to have this rich collection as part of the National Library of Medicine's information resources.

107. Hey Man! No Sharing.

A drawing by an intravenous drug user, used by the Brooklyn AIDS Task Force in an attempt to curtail the practice of sharing needles. (Courtesy of National Library of Medicine Collection.)

NOTES

1. W. D. Miles, *A History of the National Library of Medicine* (Washington, D.C.: Government Printing Office, 1982), 82-83.

2. National Library of Medicine, *National Library of Medicine Classification*, 4th ed., rev. (Washington, D.C.: Government Printing Office, 1981), 220.

Evolution of Federal Dietary Guidance Policy: From Food Adequacy to Chronic Disease Prevention*

Current dietary recommendations to improve the health of the general public are distinctly different--and have been decidedly more controversial--than those proposed by the federal government in the early part of this century. Whereas earlier recommendations urged Americans to consume foods from multiple groups in order to avoid nutrient deficiencies, more recent advice emphasizes restriction of dietary components to reduce risk factors for chronic diseases. Despite this difference, old and new federal recommendations share one feature in common: they promote use of the full range of American food and agriculture products without restriction. The concept of food groups reflects this range--it has been accepted by scientists, health professionals and the food industry without significant argument. Because reductions in intake of dietary components associated with chronic disease imply the need to limit intake of certain foods, recent recommendations have elicited intense debate over the nature of the dietary changes deemed necessary, the reliability of the evidence on which such advice is based, and the population to which recommendations are targeted.

The significance of these issues becomes apparent by examining the changes that have taken place in U.S. dietary guidance policy between the time that one government scientist first published tentative dietary advice in 1894 and the Public Health Service and the National Research Council (NRC) issued massive consensus reports in the late 1980s. In this essay, we examine the rationale for dietary recommendations, the role of specific interest groups in their development,

by Marion Nestle and Donna V. Porter

Revised version of a paper presented at the annual meeting of the American Association for the History of Medicine in Birmingham, Alabama, on April 30, 1989. The authors thank Betty Peterkin for providing copies of many of the documents cited here. The views expressed are those of the authors and do not necessarily reflect those of the Congressional Research Service or the Library of Congress.

and their implications for disease prevention in individuals and in the general population.

Early Nutrition and Health in the U.S.

The first American settlers obtained foods through farming, hunting and gathering, and--to a limited extent--internal and external trade. Thus, the diet varied according to season, climate and location. As trade became more extensive, variations with social status became more apparent.[1] Increasing industrialization and urbanization fostered improved methods of food preservation, storage and distribution, factors that enabled diets to become more stable.[2]

Early reports of dietary intake patterns were based on anecdotal information or data from limited population samples.[3] The U.S. Department of Agriculture (USDA) conducted its first national surveys of food availability in 1909, of household food consumption in 1936 and 1937, and of the food intake of individuals in 1965.[4] Thus, the health consequences of early dietary practices can only be inferred. In 1900, most of the leading causes of death in the U.S. were infectious diseases such as influenza, typhoid, diphtheria and whooping cough.[5] Malnutrition and nutrient deficiency diseases were reported frequently, especially among the poor.[6]

As housing, sanitation and nutrition improved, infectious diseases declined in prevalence but were overtaken by chronic diseases associated with excessive or unbalanced dietary intake. Of the ten leading causes of death in 1987,[7] five (coronary heart disease, certain cancers, strokes, diabetes and atherosclerosis) have been associated with diet, and another three (motor vehicle accidents, suicides, and chronic liver disease and cirrhosis) with alcohol. Epidemiologists could identify correlations between diet and these diseases more precisely when the National Center for Health Statistics added a nutrition component to its national health survey in 1971.

The First Food Groups[8]

The earliest dietary recommendations were developed by the USDA. A primary mandate for this agency, which was created in 1862, was to "diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word."[9] In the early 1890s, the USDA began to sponsor research on the relationship between agriculture and human nutrition. W.O. Atwater was appointed as the first director of its Office of Experiment Stations. Atwater published tables listing the content of calories, protein, carbohydrate, fat and "mineral matters" in common American foods.

He also estimated the amounts of food substances needed to meet the nutrient requirements of people performing varying levels of work. His analysis of the eating habits of New England laborers and professionals confirmed:

> . . . the general impression of hygienists that our diet is one-sided and that we eat too much . . . fat, starch, and sugar. This is due partly to our large consumption of sugar and partly to our use of such large quantities of fat meats. . . . How much harm is done to health by our one-sided and excessive diet no one can say. Physicians tell us that it is very great.[10]

Atwater stated that American men required more calories and protein than was recommended by European physiologists of that era because ". . . people in this country work harder and need ampler nourishment than is common among wage workers in Europe."[11] He "ventured to suggest a standard with . . . 3,500 calories of energy for the man at moderate muscular work," with a distribution that calculates to 15 percent of calories from protein, 33 percent from fat, and 52 percent from carbohydrate.[12] These recommendations, which required a substantial decrease in fat intake and an increase in carbohydrate intake, are remarkably similar to current advice.

Atwater's food tables did not include vitamins. Although diseases such as scurvy, beriberi and pellagra were known to be associated with diet, no vitamin had yet been isolated. As scientists identified the structure and function of the vitamins,[13] the USDA began to translate these discoveries into advice for consumers. By 1917, the agency had produced at least thirty pamphlets to inform "housekeepers" about the nutritive value of foods, the role of specific foods in the diet, and foods appropriate for young children at home or at school.

The USDA's first set of dietary recommendations appeared in a fourteen-page pamphlet entitled *How to Select Foods*, which listed the nutrient substances needed for health and grouped foods providing these substances into five groups--fruits and vegetables; meats and other protein-rich foods (including milk for children); cereals and other starchy foods; sweets; and fatty foods.[14] This pamphlet is notable in that it sets forth the principles that govern USDA dietary guidance policy to this day. No specific foods or combinations of foods were recommended. As the authors explained in their introduction, the pamphlet

> . . . tells very simply what the body needs to obtain from its food for building its tissues, keeping it in good working order, and providing it with fuel or energy for its muscular work. It shows in a general way how the different food materials meet these needs and groups them according to their uses in the body.[15]

In this publication the authors ignored Atwater's advice to limit intake of fat and sugar. Instead, they

emphasized the need to include newly discovered nutrients in the diet. This emphasis was supported by food manufacturers and agricultural producers, who realized that the market for their products "was limited: Americans had enough to eat and could not be persuaded to eat more food. This meant that any increase in the consumption of one food commodity would have to be at the expense of others."[16] The new discoveries could be exploited to promote foods containing vitamins necessary for optimal growth, health and longevity[17] and to encourage purchase of the full range of American agricultural products. As explained by the USDA in 1923, all foods contribute to healthy diets:

> The number of different food materials available in most parts of the United States is very great and is constantly increasing as a result of improved methods of agriculture. . . . There is no one of all these many foods that cannot be introduced into the diet in such a way as to contribute to its wholesomeness or its attractiveness. . . .[18]

The food group approach was adopted immediately by the U.S. Food Administration as a means to sustain the food supply during World War I. This agency urged housewives to conserve food and to substitute nutritionally comparable foods within each of the five groups.[19] During the next decade, five food groups served as the basis of USDA dietary advice to families, mothers of young children and teenagers.[20]

By the 1930s, the USDA had identified certain foods as especially rich sources of vitamins and minerals. Its dietary advice began to reflect not only the physiologic needs for such foods but also the ability of consumers to pay for them. The economy food plan in *Diets at Four Levels of Nutritive Content and Cost*,[21] however, failed to achieve minimal dietary standards for use of protective foods, implying for the first time that the poor could not be expected to afford anything more than a marginally adequate diet.[22] Noting that the selection of foods by consumers has far-reaching implications for agriculture, this publication increased the number of food groups to twelve and included, for the first time, milk as a separate category.

The Recommended Dietary Allowances

In 1940, the National Academy of Sciences established a Committee on Food and Nutrition under the auspices of the National Research Council to advise the government about nutrition problems that might affect national defense. One of the first tasks of this committee, which became the Food and Nutrition Board in 1941, was to establish standards for daily nutrient intake for the armed forces and for the general population.[23] The committee presented Recommended Dietary Allowances

(RDAs) for energy and eight nutrients at a National Nutrition Conference on Defense in May of 1941. Since 1943, committees have developed revised editions at approximately five-year intervals.[24]

RDAs provide guidelines for individuals according to age, activity level, gender and body size. The tenth edition established standards for nineteen nutrients and ranges of intake considered "safe and adequate" for another seven.[25] Although the RDAs were designed originally to improve nutritional status as an aid to national defense, they have been used since to access dietary adequacy, to interpret food consumption records, to establish levels of food assistance, to evaluate the nutritional status of individuals and populations, to label food products, and to develop nutrition education and dietary counseling guidelines.[26]

Because the RDAs affect so wide a range of nutrition policies, their limitations require careful attention. RDAs are established at levels designed to exceed the requirements of practically all healthy people. Most individuals can consume amounts of nutrients significantly below RDA levels and still meet dietary requirements. These figures are estimates of the nutrient needs of populations and may be inappropriate for individuals with other than average nutrient requirements. Thus, it has proved difficult to translate these standards into a universally applicable pattern of food choices. As chronic diseases have replaced deficiency diseases as leading causes of death, these limitations have led to increasing controversy over application of the RDAs. This controversy has culminated most recently in the prolonged delay in publication of the tenth edition discussed later.

U.S. NEEDS US STRONG
EAT NUTRITIONAL FOOD
Every day, eat this way
MILK and MILK PRODUCTS . . . at least a pint for everyone—more for children—or cheese or evaporated or dried milk.
BREAD and CEREAL . . . whole grain products or enriched white bread and flour.
ORANGES, TOMATOES, GRAPEFRUIT . . . or raw cabbage or salad greens—at least one of these
MEAT, POULTRY or FISH . . . dried beans, peas or nuts occasionally.
GREEN or YELLOW VEGETABLES . . . one big helping or more—some raw, some cooked
EGGS . . . at least 3 or 4 a week; cooked any way you choose—or in "made" dishes
OTHER VEGETABLES, FRUIT . . . potatoes, other vegetables or fruits in season.
BUTTER and OTHER SPREADS . . . vitamin-rich fats, peanut butter, and similar spreads.
Then eat other foods you also like
OFFICE OF DEFENSE HEALTH AND WELFARE SERVICES
PAUL V McNUTT, DIRECTOR, WASHINGTON, D. C.

During World War II, the government recommended daily consumption of foods from at least eight groups to prevent nutritional deficiencies. In contrast, current advisors emphasize reduced intake of butter, eggs and high-fat meat and dairy foods to prevent diet-related chronic diseases.

(Reproduced from* U.S. Needs US Strong, *Washington, D.C.: Office of Defense Health and Welfare Services, 1942)

The War Years: Food Groups Continued

Wartime rationing of meat, sugar, butter and canned goods inspired various federal agencies to develop new guidelines based on both pragmatic considerations of food availability and theoretical considerations of nutrient requirements.[27] In 1942, U.S. agencies instructed Americans to "do your part in the national nutrition program" by eating foods every day from eight

groups. Four of these groups were milk, meat, eggs and butter,[28] all sources of fat and cholesterol as well as vitamins and minerals. The following year the USDA issued the *National Wartime Nutrition Guide* with the slogan, "U.S. needs us strong: eat the Basic 7 every day."[29] The Basic Seven combined meat, eggs, fish and beans into one group, kept milk as a separate category, and retained fats and sugars (which later would be substances to avoid) as separate groups.

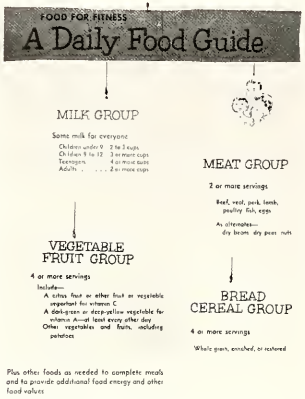
The changing number of food groups in these guides reveals the lack of coordination not only between federal agencies but also within the same agency. In 1943, for example, the USDA published the Basic Seven but instructed wartime homemakers to plan low- and moderate-cost meals based on purchases from eleven food groups.[30]

The Postwar Years: Food Groups Consolidated

Two USDA publications in 1946 continued these inconsistencies. The *National Wartime Nutrition Guide* was published without significant change for peacetime use as the *National Food Guide*. It contained this advice:

"This is the Basic 7 guide for well-balanced meals. In time of emergency, you need to eat less of the scarce foods, more of the plentiful. FOOD IS NEEDED TO FEED THE HUNGRY--DON'T WASTE IT."[31]

Two months later, the same USDA agency issued *Food for Growth: Food for Freedom*, targeted to school children in the fourth through sixth grades. This publication was the first to recommend selections from just four food groups-- milk, vegetables and fruit; eggs, meat, poultry or fish (sometimes dried beans or peas); and bread, cereal, cookies and cakes.[32]


FOOD FOR FITNESS
A Daily Food Guide
MILK GROUP
Some milk for everyone
Children under 9 2 to 3 cups
Children 9 to 12 3 or more cups
Teenagers 4 or more cups
Adults 2 or more cups
MEAT GROUP
2 or more servings
Beef, veal, pork, lamb, poultry, fish, eggs
As alternates— dry beans, dry peas, nuts
VEGETABLE FRUIT GROUP
4 or more servings
Includes—
A citrus fruit or other fruit or vegetable important for vitamin C
A dark-green or deep-yellow vegetable for vitamin A—at least every other day
Other vegetables and fruits, including potatoes
BREAD CEREAL GROUP
4 or more servings
Whole grain, enriched, or restored
Plus other foods as needed to complete meals and to provide additional food energy and other food values

The 1958 version of the Basic Four Food Groups gave equal weight to the Milk and Meat groups and listed them first.

(Reproduced from* Food for Fitness: A Daily Food Guide, *Leaflet no. 424, U.S. Department of Agriculture, March 1958).

In the early 1950s, USDA nutritionists compared the results of the Nationwide Food Consumption Survey to the most recent RDAs and noted that the diets of many Americans were below standard for several nutrients. A new food guide was needed to "help the average person choose his food more wisely."[33] To ensure that recommendations would produce diets that met the RDAs, nutritionists simplified the four groups to milk (retaining its position as a separate category); vegetables and fruits; meats; and breads and cereals. They also

specified the number and size of servings within each group.

In an effort to achieve consensus on these categories, the USDA invited leading nutrition authorities in government, research, the food industry and agricultural commodity groups to review preliminary drafts because "it was felt that food industry groups would have a vital interest in any food guide sponsored by the government," as indeed they did: "The meat industry groups were unhappy about the serving size indicated for meat. . . . They pointed out that this size is smaller than average."[34]

In response to these and other comments, USDA officials reviewed the document and produced it first as a handbook for nutrition professionals[35] and later for the general public as *Food for Fitness: a Daily Food Guide*.[36] Versions of this guide, known popularly as the Basic Four, remained the principal instrument of USDA dietary guidance policy until 1980, although family meal and cost plans continued to be based on eleven food groups.[37]

The Need for New Dietary Guidance Policies

In 1967, a report of an investigation of hunger and malnutrition among low-income groups in the U.S. became the subject of a television documentary that shocked the nation.[38] The report called for immediate expansion of federal food assistance programs to correct the conditions that had been observed, and it noted that:

> The failure of federal efforts to feed the poor cannot be divorced from our nation's agricultural policy, the Congressional committees that dictate that policy, and the Department of Agriculture that implements it; for hunger and malnutrition in a country of abundance must be seen as consequences of a political and economic system that spends billions to remove food from the market, to limit production, to retire land from production, to guarantee and sustain profits for large producers of basic crops.[39]

In July of 1968, the Senate responded by appointing a Select Committee on Nutrition and Human Needs, chaired by Senator George McGovern, to lead "the war against hunger among the nation's young, old and poor."[40] Over the next nine years, this committee initiated legislation that expanded food assistance for families, children and the elderly. It also helped organize the 1969 White House Conference on Food, Nutrition, and Health, a meeting that focused national attention on the need to address problems of nutritional adequacy in the U.S.[41]

In the the early 1970s, the committee staff became aware of evidence that the typical American diet--high in fat, cholesterol, salt and sugar--might be related to the increasing prevalence of chronic diseases. Much of

this evidence came from the American Heart Association (AHA), which had published reports on the role of dietary fat in atherosclerosis in the mid-1950s,[42] advice to reduce caloric intake from fat in 1961,[43] and formal recommendations for dietary changes and public policies to reduce coronary heart disease risk factors in 1970.[44] These last recommendations had called for significant reductions in consumption of fat (to 35 percent of calories or less), saturated fat (to 10 percent), and cholesterol (to 300 milligrams per day.)

The Senate committee used this information to initiate legislation that required the National Institutes of Health to investigate nutritional components of the epidemiology, etiology, and prevention of coronary heart disease, diabetes and digestive diseases. The staff considered:

> . . . why so little was said about the relationship between the American diet and the nation's health. Undernutrition . . . was a problem for a small but significant part of the population. However, it was also apparent that malnutrition had two faces and that overconsumption was a major health concern for at least 30 million Americans.[45]

To address the issue of dietary overconsumption, the Senate committee held hearings on dietary determinants of obesity, diabetes and heart diseases in 1973 and produced a staff report on nutrition and chronic disease in 1974. In July of 1976, it held two hearings on "Diet Related to Killer Diseases," at which more than thirty witnesses discussed the role of American food consumption patterns in cancer, cardiovascular disease and obesity.[46]

On the basis of this testimony, the committee issued its landmark staff report, *Dietary Goals for the United States*, at a press conference on January 14, 1977:

> . . . this is the first comprehensive statement by any branch of the Federal Government on risk factors in the American diet. The simple fact is that our diets have changed radically within the last 50 years. . . . These dietary changes represent as great a threat to public health as smoking. Too much fat, too much sugar or salt, can be and are linked directly to heart disease, cancer, obesity, and stroke, among other killer diseases.[47]

Consistent with American Heart Association recommendations, the report established six goals for dietary changes to improve health:

- increase carbohydrate consumption to 55 to 60 percent of caloric intake;
- decrease fat consumption (to 30 percent);

- reduce saturated fat and balance with polyunsaturated and monounsaturated fats (to 10 percent each);
- reduce cholesterol consumption to about 300 milligrams per day;
- reduce sugar consumption to 15 percent of caloric intake;
- reduce salt consumption to about three grams per day.

To achieve these goals, the report recommended that Americans increase consumption of fruits, vegetables, whole grains, poultry and fish; decrease consumption of meat, eggs and foods high in fat, butterfat, sugar, and salt; substitute non-fat milk for whole milk; and partially substitute polyunsaturated fat for saturated fat.[48]

Because these recommendations called for significant changes in American eating patterns, it was not surprising that the commodity groups and food manufacturers most likely to be affected--cattlemen, egg producers, sugar interests, and the canning and dairy industries--reacted with strong protest.[49] "Here, after all, was the Congress of the United States telling the public not to eat their products."[50] Anticipating that nutrition scientists also might have objections, the committee maintained that uncertainties in the science base should not detract from the recommendations:

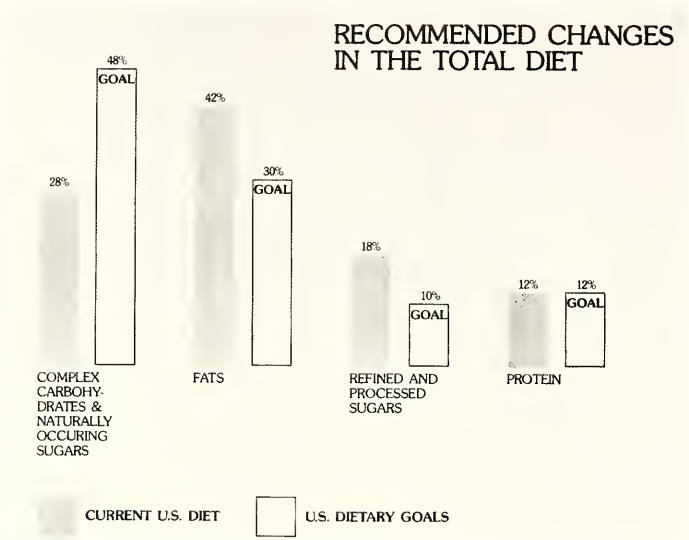
> There will undoubtedly be many people who will say we have not proven our point; we have not demonstrated that the dietary modifications we recommend will yield the dividends expected. We would point out to those people that the diet we eat today . . . is a happenstance related to our affluence, the productivity of our farmers and the activities of our food industry. The risks associated with eating this diet are demonstrably large. The question to be asked, therefore, is not why should we change our diet but why not?[51]

The negative reactions of some scientists to the report have been summarized succinctly:

> Too soon, more research needed, relationships not proved; politically motivated; promises the public too much; my advice wasn't incorporated; needs expert review . . . big brother approach; . . . iron deficiency may increase if less meat eaten; it's unwise to tamper with all the people's diets; I agree partly but it goes too far . . .; "A nutritional debacle. . . . "[52]

The American Medical Association argued that it was inappropriate:

> for the government to adopt national goals that specify such matters as the amount and proportions of total fat, type of fat, sugar, cholesterol,



Dietary Goals for the U.S., *a report from the Senate Select Committee on Nutrition and Human Needs, recommended that Americans decrease caloric intake from fat by reducing consumption of animal fats and substituting low-fat for high-fat dairy foods--suggestions that were not widely accepted by the food industry.*

(Reproduced with permission from* Dietary Goals for the United States: Food and Health, *a publication of the American Heart Association, Alameda County Chapter, 1978, p. 10.)

or salt content in the diets of the general public. . . . Rather [we believe that] individual programs to prevent or to treat . . . would be the most effective means of improving the health of our American citizens . . . the recommendations carry with them the underlying potential for . . . discouraging the agricultural production of certain food products which may not in the view of the government be supportive of the dietary goals.[53]

The impact of these protests was immediate. "Pressure was brought to bear, especially, some claim, from the cattle industry in McGovern's home state of South Dakota."[54] The meat and egg producers demanded--and obtained--additional hearings to express their views. In response, the committee produced a revised second edition later that year which strengthened the recommendations on obesity and alcohol, but attempted to placate the food industry by increasing the salt recommendation from three to five grams per day; replacing the statement "reduce consumption of meat" with "choose meats, poultry,

and fish which will reduce saturated fat intake;" and adding that "some consideration should be given to easing the cholesterol goal for pre-menopausal women, young children and the elderly in order to obtain the nutritional benefits of eggs in the diet."[55]

Despite such compromises, the *Dietary Goals* proved a turning point. Although discounted at the time by many nutrition professionals, the report changed the course of nutrition education in the United States and became the basis of all subsequent dietary recommendations. This accomplishment, however, was the last by the Select Committee on Nutrition and Human Needs. In February of 1977, shortly after release of the report, the Senate voted to "merge" McGovern's committee into a subcommittee of the Senate Committee on Agriculture, Nutrition, and Forestry as of the end of that year.[56] Subsequently, McGovern was defeated when he ran for re-election in 1980.

Movement Toward Consensus

Concerned about the biased arguments used by scientists who opposed the *Dietary Goals*, the American Society for Clinical Nutrition, an organization of professionals engaged in human nutrition research, convened a task force in 1978 to review the strength of the evidence that related dietary factors to chronic diseases but would "avoid the advocacy role and . . . constitute a consensus that would be of help to public officials in formulating national policy."[57] In its evaluation, the task force demonstrated for the first time that researchers had reached a substantial level of consensus on the role of dietary fat, cholesterol, salt, sugar and alcohol as influencing the development of specific chronic diseases.

Additional professional support for the *Dietary Goals* appeared in a 1978 statement from the American Heart Association, which reiterated its long-standing recommendations for reduction of fat, saturated fat and cholesterol.[58] In 1979, the National Cancer Institute issued similar recommendations in its first tentative statement on the association of dietary factors with cancers at specific sites.[59] Thus, leading health agencies agreed that the two primary causes of death in the U.S.--coronary heart disease and cancer--could be prevented at least in part by virtually identical dietary changes.

Healthy People. In 1979, the Department of Health, Education, and Welfare (DHEW) issued *Healthy People: the Surgeon General's Report on Health Promotion and Disease Prevention* in order to:

> . . . encourage a second public health revolution in the history of the United States. And let us make no mistake about the significance of this document. It represents an emerging consensus among scientists and the health community that the Nation's health strategy must be

> dramatically recast to emphasize the prevention of disease.[60]

In this report, public health officials announced goals for a ten-year plan to improve national health. The nutrition section of this plan recommended diets with fewer calories; less saturated fat, cholesterol, salt, and sugar; relatively more complex carbohydrates, fish, and poultry; and less red meat. The report also noted that more than half of Americans' diet consisted of processed foods rather than fresh agricultural produce and that consumers should pay closer attention to the nutritional qualities of such foods.

Although these recommendations did not include specific numerical targets for intake of nutrients,[61] any advice to eat less red meat and to be wary of processed foods was certain to attract notice. To avoid controversy, *Healthy People* was released without a press conference in July of 1979 as one of the final official acts of Joseph Califano, who had been fired from his position as Secretary of Health, Education, and Welfare by President Carter the month before. The meat industry's reaction was predictable. Said David Stroud, president of the National Livestock and Meat Board: "The report begins with 'The health of the American people has never been better,' and we think it should have ended right there."[62]

Food Groups Revisited: The Basic Four Plus One. In attempting to devise menu plans that would meet both the RDAs and the Dietary Goals, USDA nutritionists stated that such diets "were so disruptive to usual food patterns" that they could not be adopted.[63] Instead, they developed *Food: The Hassle-Free Guide to a Better Diet*, a publication notable for its careful neutrality on issues of diet and health. For example:

> "Many scientists say the American diet is contributing to some of the chronic diseases that hit people in later life. . . . Other scientists believe just as strongly that the evidence doesn't support such conclusions. So the choice is yours."[64]

This publication displayed the fruit/vegetable and bread/cereal groups above the dairy and meat groups. To help consumers make a choice, it added to the Basic Four a fifth group of foods--fats/sweets/alcohol--that keep bad "nutritional company" and are high in calories but low in essential nutrients and fiber.

These alterations proved unacceptable to the food industry. The USDA intended to follow the guide with a second publication that would explain how to use food groups to maintain appropriate body weight and reduce intake of fat and cholesterol. However, under pressure from the meat, dairy and egg industries, this publication was suppressed.[65] The completed page boards were obtained by the American Dietetic

Association, which published them as two separate booklets in 1982.[66]

The Dietary Guidelines. In February of 1980, ". . . with the fanfare of Moses unveiling the tablets,"[67] the USDA and DHEW announced joint publication of their consensus document, *Nutrition and Your Health: Dietary Guidelines for Americans,* advising the public to "eat a variety of foods; maintain ideal weight; avoid too much fat, saturated fat, and cholesterol; eat foods with adequate starch and fiber; avoid too much sugar; avoid too much sodium; if you drink alcohol, do so in moderation."[68]

Because these guidelines were so general, they should have been acceptable to the food industry. Indeed:

> . . . the Food Marketing Institute (FMI), representing supermarket chains, promised to distribute the *Guidelines* to its members, commenting that they are "simple, reasonable and offer great freedom of choice." Even the American Meat Institute (AMI) called the *Guidelines* "helpful," noting they provide "a continuing and central role for meat."[69]

For other segments of the food industry, however, even these recommendations went too far. Although the *Guidelines*

> were as mild a set of proposals as has ever been drafted. . . , the resulting outcry was unbelievable--charges and countercharges, editorials in prestigious newspapers, and Congressional hearings. All served to inflame the debate and obfuscate the real issues, i.e., are there reasons for changes in the national diet and, if so, how can these changes be accomplished?[70]

One commentator explained the essence of the controversy by noting that

> the "political *raison d'etre* for the Department of Agriculture is to make it easier for farmers to make money. And that purpose is not well served by permitting the people in Bethesda, Md., to run loose on such politically sensitive matters as red meat, butter, and eggs."[71]

With criticisms that its recommendations said both too little and too much, the *Dietary Guidelines* might simply have disappeared. Instead, this report soon became accepted as official federal nutrition policy. Two key events helped to consolidate its position: publication of a report from the NRC Food and Nutrition Board entitled *Toward Healthful Diets,* and a federal directive to develop a revised second edition of the *Guidelines.*

Toward Healthful Diets. In May of 1980, just three months after

publication of the *Dietary Guidelines*, the NRC issued a report stating that there was no reason for the average healthy person to restrict dietary intake of fat or cholesterol.[72] This advice was perceived widely as ". . . a sharp departure from the mainstream of recent dietary recommendations,"[73] and it set off yet another round of protest. This time, however, federal agencies, consumer advocacy groups, nutrition scientists and Congressional committees were united in support of the *Guidelines*. In part, this support was generated by evidence that preparation of *Toward Healthful Diets* was wholly financed by food industry donations and by concerns that at least two of the Food and Nutrition board scientists most closely connected to the report had strong ties to industry.[74]

Dietary Guidelines*: *Second Edition. Shortly after the 1980 presidential election, in order to ensure that the government would speak with "one voice" on the role of diet in health, Congress directed the Secretary of USDA, in cooperation with the Department of Health and Human Services (formerly DHEW) and the NRC Food and Nutrition Board, to establish a Guidelines Advisory Group to revise the *Guidelines*.[75] Consumer groups subsequently pointed out that five of the six USDA nominees were closely connected to the food industry,[76] and one of the two government representatives on the advisory committee threatened to resign if any substantial changes were made.[77] By this time, however, the principal areas of controversy were close to resolution. When the second edition appeared in 1985, it differed from the original in only three words.[78]

Nutrition and Your Health
Dietary Guidelines for Americans
1 Eat a Variety of Foods page 4
2 Maintain Ideal Weight page 7
3 Avoid Too Much Fat, Saturated Fat, and Cholesterol page 11
4 Eat Foods with Adequate Starch and Fiber page 13
5 Avoid Too Much Sugar page 15
Avoid Too Much Sodium page 17
7 If You Drink Alcohol, Do So in Moderation page 19
Nutrition and Your Health
Dietary Guidelines for Americans
Eat a Variety of Foods page 6
Maintain Desirable Weight page 9
Avoid Too Much Fat, Saturated Fat, and Cholesterol page 15
Eat Foods with Adequate Starch and Fiber page 17
Avoid Too Much Sugar page 19
Avoid Too Much Sodium page 21
If You Drink Alcoholic Beverages, Do So in Moderation page 23

The second edition of the* Dietary Guidelines for Americans *(right) differed from the first (left) in only three words, but its elimination of numbers (which suggested priority order) and of the dark coloring in the number three (which seemed to emphasize the need to reduce fat--and, therefore, meat and dairy--intake) made the second edition somewhat less controversial.

(Reproduced with permission from* Nutrition and Your Health: Dietary Guidelines for Americans, *first and second editions, Home and Garden Bulletin No. 32, Washington, D.C.: USDA, 1980 and 1985).

Draft proposals for the third edition, to be published in 1990, should also prove acceptable to the food industry. They rephrase the recommendations to make the tone more positive (see Table) and address concerns "that certain foods are increasingly perceived as 'bad' and unfit for inclusion in the diet. . . . Any food that supplies calories and essential nutrients is recognized as potentially useful in a nutritious diet."[79]

This "total diet" approach permits consumption of meat and dairy products and other foods that may be high in fat:

> These goals for fats apply to your diet over several days, not to a single meal or food.

Some foods that contain fat, saturated fatty acids, and cholesterol, such as meats, milk, cheese, and eggs, also contain high-quality protein and are our best sources of certain vitamins and minerals.[80]

Disease-Specific Recommendations

From 1980 to 1986, dietary recommendations proliferated and were accompanied by increasing recognition of their fundamental similarity. Reports published by private and governmental agencies devoted to prevention or treatment of cancer, coronary heart disease, hypertension and diabetes offered substantial support for the general principles of the *Dietary Guidelines*, as well as the numerical targets of the *Dietary Goals*.

Cancer. The Food and Nutrition Board's 1982 report, *Diet, Nutrition, and Cancer*,[81] was the last set of dietary recommendations to elicit widespread opposition. By proposing that cancer risk could be reduced by diets lower in fat (30 percent or less of calories), higher in fiber, and restricted in alcohol and salt-cured foods such as bacon, hot dogs and sausages, the report generated unfavorable attention from Congressional representatives responsive to industry[82] and from meat producers who held the report responsible for the immediate fall in prices that followed its release.[83] The report also was criticized by the new Secretary of Agriculture, John R. Block, who stated in his confirmation hearings that "I'm not so sure government should get into telling people what they should or shouldn't eat."[84] Some scientists were concerned that the evidence relating diet to cancer

The USDA's* Hassle-Free Daily Food Guide *elicited opposition from the food industry. It listed the vegetable/fruit and bread/cereal groups above the dairy and meat groups, emphasized the desirability of reducing fat intake, and singled out red meat as especially high in fat. It was not reprinted.

(Reproduced from the* Hassle Free Daily Food Guide, *Washington, D.C., USDA, Science and Education Administration, Leaflet No. 567, March 1980.)

was less than compelling. While they congratulated "the Committee for having compiled so readable a book on nutrition and cancer, they noted that the credibility of nutritional science is not enhanced by lowering the standards for critical assessment of evidence.[85]

Viewing such statements as biased, the American Cancer Society supported these recommendations in a special report of its own[86] and the National Cancer Institute followed suit with similar dietary objectives[87] and guidelines[88] for cancer prevention.

Coronary Heart Disease. The strongest support for the *Dietary Goals* and *Guidelines* continued to come from groups that addressed reduction of risk factors for coronary heart disease. The American Heart Association issued policy statements in 1982,[89] 1984[90] and 1986[91] that reiterated numerical targets for intake of fat, cholesterol and salt. In 1983, the American Medical Association endorsed these targets,[92] as did a 1985 NIH consensus panel.[93] Shortly thereafter, the National Heart, Lung, and Blood Institute (NHLBI) announced a national campaign to lower blood cholesterol levels with reduced fat intake as the first therapeutic step.[94] Some clinicians argued that this effort was inappropriate for the general public and should be reserved for individuals with high blood cholesterol levels as diagnosed by their physicians,[95] but the NHLBI continued to pursue the campaign based on its conviction that the scientific support was overwhelming.[94]

Diabetes and Hypertension. In 1979 and 1985 the American Diabetes Association issued numerical dietary targets for fat, complex carbohydrates and salt similar to those set forth in the *Dietary Goals* as a means to prevent and treat patients with diabetes.[97] In 1984 and 1988, the NHLBI identified weight control and sodium and alcohol restriction as the most effective dietary methods to prevent or treat high blood pressure and supported what by then had become standard numerical targets for reduction of cardiovascular risk factors.[98]

RDAs in the 1980s: the Delayed Tenth Edition

Despite the apparent unanimity of disease-specific recommendations, one last area of controversy remained to be resolved. As noted earlier, the RDAs had been developed as standards for prevention of nutrient deficiencies in the population. The NRC Food and Nutrition Board deliberations during preparation of the tenth edition did not include consideration of research evidence on the role of diet in chronic disease. When the committee proposed to reduce the RDAs for vitamins A and C, it ignored potential conflicts with the Food and Nutrition Board's 1982 recommendations to increase intake of foods containing these substances in order to prevent cancer.[99] When challenged to explain the contradiction, members of the RDA committee stated that they

". . . did not think the scientific data should be interpreted primarily with policy in mind."[100] Unable to reconcile the two sets of recommendations, the NRC rejected the RDA report and appointed a new committee to ". . . break the impasse and answer the unresolved scientific questions."[101] This new committee released the tenth edition in 1989 with recommendations for vitamins A and C largely unchanged.[102]

Consensus achieved: 1988-1989

In 1988 and 1989, the publication of three new reports indicated an apparent achievement of consensus. The authors of *Designing Foods*, a report from the NRC Board on Agriculture, recommended a reduction in fat intake to 30 percent of calories. To do so, it challenged the meat industry to develop methods to raise beef with reduced fat content.[103] Remarkably, this report had been requested by the USDA and produced with the full cooperation of the meat industry. In July of 1988, the Public Health Service released the *Surgeon General's Report on Nutrition and Health*, a 700-page, comprehensive review of research on diet and chronic disease that emphasized the policy implications of its findings for nutrition education, services and research.[104] This report was followed in March of 1989 by the even larger *Diet and Health* study from the NRC Food and Nutrition Board, which summarized the results of 5,000 research investigations.[105] Authors of these last two reports came to similar conclusions and issued similar recommendations. Those of the *Surgeon General's Report* supported the general principles of the *Dietary Guidelines*, whereas those of the *Diet and Health* study resembled the *Dietary Goals*. All three reports identified the need to reduce fat consumption as the primary priority in public health nutrition efforts to prevent chronic disease.

The release of each of these reports made front-page news and generated widespread acclaim from nearly all segments of the nutrition community. The few dissenting comments on the *Surgeon General's Report*, for example, noted only that the report ". . . says little new and actually retreats from positions taken earlier by federal and other agencies.[106]

The Changing Nutrition Environment

For nearly seventy years, Atwater's 1894 advice to reduce dietary fat to about 30 percent of calories was largely ignored. During that time, increasing centralization of agricultural production and distribution, expansion of the food industry, and knowledge of the role of nutrients in growth and longevity encouraged federal nutritionists to emphasize consumption of sufficient foods to protect consumers against nutrient deficiencies. Increasing recognition of the relationship between dietary patterns and chronic disease gradually created a climate more favorable to acceptance of Atwater's original advice.

CHANGES PROPOSED TO FRONT COVER

Second Edition	Proposed Third Edition	Reason to Change
Eat a variety of foods	(same)	
Maintain desirable weight	Maintain healthy weight	Health-based definition used
Avoid too much fat, saturated fat, and cholesterol	Choose a diet low in fat, saturated fat, and cholesterol	Focus on total diet in more positive way
Eat foods with adequate starch and fiber	Choose a diet with plenty of vegetables, fruits, and grain products	Focus on foods in the total diet
Avoid too much sugar	Use sugars in moderation	Focus on targeted foods in more positive way
Avoid too much sodium	Use salt and sodium in moderation	Focus on both in more positive way
If you drink alcoholic beverages, do so in moderation	(same)	(same)

Proposed text changes for the third edition of the* Dietary Guidelines for Americans. *The new language implies that all foods are potentially useful in nutritious diets--even those high in fat, sugar, and salt.

(Reproduced with permission from* Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 1990, *Human Nutrition Information Service, U.S. Department of Agriculture, May 14, 1990, p. 2).

Despite recommendations by the American Heart Association in 1961 and the Senate Select Committee in 1977, consensus on the need to reduce dietary fat was not achieved until the late 1980s. During that period, scientists debated the quality of the research evidence, health professionals argued about the public's need for such advice, and the food industry fought the economic implications of dietary fat reduction. Yet these groups gradually came to accept and to support the recommendation.

To a considerable extent, this change in attitude can be attributed to greatly expanded scientific understanding of the role of diet in disease. Scientists in government and in the private sector eventually became convinced that the preponderance--and consistency--of evidence supported recommendations for dietary change.

The increase in public interest in nutrition during the 1980s also affected receptiveness to dietary recommendations. Consumer demands for information, purchase of foods perceived as healthy, and rejection of

foods perceived as unhealthy,[107] created a public base of support for federal pronouncements on the role of diet in health. Finally, the food industry came to recognize the marketing potential of foods that meet dietary recommendations. It reduced opposition to such guidelines and instead began to use them to promote products:

> Recommendations . . . will encourage companies to develop products for nutrition conscious consumers . . . consumer demand has prompted food companies to call attention to healthful properties of existing products and introduce a wide array of high fiber, low sodium, low fat and low cholesterol products.[108]

One index of the power of such views--and of the current consensus--is the new proposal by the Food and Drug Administration of a policy for mandatory nutrition labeling that requires manufacturers of nearly all processed foods to list the content of fat, saturated fat, cholesterol and fiber in their products. The rules also propose restrictions on claims that products are low in cholesterol unless the foods are also low in fat. [109]

Issues for the 1990s

With consensus on dietary recommendations virtually complete, the focus of attention now shifts to development of strategies to improve overall patterns of dietary intake in the U.S. Although it might appear that Americans already have changed their eating patterns in response to dietary recommendations, evidence suggests that overall changes are minimal. For example, the total availability of fat in the U.S. food supply has risen steadily throughout this century and the availability of saturated fat has remained unchanged for the past seventy years.[110] Consumers have substituted skim for whole milk and butter for margarine, but they have more than compensated for such changes by increasing intake of cheese, frozen desserts, processed meats, packaged foods and other sources of hidden fat.

In the years ahead, government and health agencies will be seeking ways to improve nutrition education for the public, to bring the food production, marketing, and service systems into compliance with dietary recommendations, and to increase the level of nutrition knowledge and practice among physicians and other health professionals who advise the public about diet.[111] Today, the targets of dietary advice have shifted to include policymakers and food industry leaders as well as homemakers. The fundamental consistency of dietary recommendations for healthy promotion and disease prevention, though long obscured by controversy, is now generally accepted. The present challenge is to find ways to encourage food producers and consumers to practice what has so long been preached.

NOTES

1. Calla Van Syckle, "Some Pictures of Food Consumption in the United States," (Part I. 1630 to 1680, Part II. 1680 to 1941), *Journal of the American Dietetic Association 21* (1945):508-514, 690-695.

2. Norge W. Jerome, "The U.S. Dietary Pattern from an Anthropological Perspective," *Food Technology 35 (2) (1981): 37-42.*

3. *Historical Statistics of the United States: Colonial Times to 1970* (Washington, DC: U.S. Department of Commerce, 1975), 1175, provides data on food rations of American slaves, prisoners, ship passengers, and members of the armed forces.

4. U.S. Department of Health and Human Services and U.S. Department of Agriculture, *Nutrition Monitoring in the United States: A Progress Report from the Joint Nutrition Monitoring Evaluation Committee* (Washington, DC: U.S. Government Printing Office, 1986).

5. *Historical Statistics*, 58.

6. For a critical analysis of such reports, see Harvey Levenstein, *Revolution at the Table: The Transformation of the American Diet* (New York: Oxford University Press, 1988), 109-120.

7. "Advance Report of Final Mortality Statistics, 1987," *Monthly Vital Statistics Report 37 (1)*, (1988).

8. See Ann A. Hertzler and Helen L. Anderson, "Food Guides in the United States," *Journal of the American Dietetic Association 64* (1974):19-28; Louise Light and Frances J. Cronin, "Food Guidance Revisited," *Journal of Nutrition Education 13* (1981):57-62; and Betsy Haughton, Joan D. Gussow, and Janice M. Dodds, "An Historical Study of the Underlying Assumptions for United States Food Guides from 1917 through the Basic Four Food Group Guide," *Journal of Nutrition Education 19* (1987):169-175.

9. Department of Agriculture Organic Act, 12 Stat. 317, 15 May 1962. Also see *Some Landmarks in the History of the Department of Agriculture* (Washington, DC: Bureau of Agricultural Economics, Agricultural History Series No. 2; rev. January, 1951).

10. W.O. Atwater, *Foods: Nutritive Value and Cost.* Farmers' Bulletin No. 23 (Washington, DC: Government Printing Office, 1894), 25.

11. W.O. Atwater, "Food and Diet," in *Yearbook of the United States Department of Agriculture: 1984* (Washington: Government Printing Office, 1895), 371.

12. W.O. Atwater, *Foods: Nutritive Value and Cost*, 26-28. The percentage figures are calculated from data on pp. 8 and 18.

13. See Elmer V. McCollum, *History of Nutrition* (Boston, MA: Houghton Mifflin, 1957).

14. Caroline L. Hunt and Helen W. Atwater, *How to Select Foods. I. What the Body Needs*, Farmers' Bulletin 808 (Washington, DC: USDA, March, 1917).

15. *Ibid*, 1.

16. Levenstein, *Revolution at the Table*, 152.

17. *Ibid*, 147-160.

18. Caroline L. Hunt, *Good Proportions in the Diet*, Farmers' Bulletin No. 1313 (Washington, DC: USDA, March, 1923), 1.

19. U.S. Food Administration, *Food and War* (Boston, MA: Houghton Mifflin, 1918), 262-281.

20. See USDA publications, *A Week's Food for an Average Family* (Farmer's

Bulletin 1228, December 1921); *Food for Young Children* (Farmers' Bulletin No. 717, rev. June 1920); and *A Guide to Good Meals for the Junior Homemaker* (Misc. Circular No. 49, 1926).

21. Hazel K. Stiebling and Medora M. Ward, *Diets at Four Levels of Nutritive Content and Cost*, USDA Circular No. 296 (Washington, DC: USDA, November 1933).

22. For an analysis of this issue, see Haughton *et al., An Historical Study of the Underlying Assumptions*, 171.

23. See Lydia J. Roberts, "Beginnings of the Recommended Dietary Allowances," *Journal of American Dietetic Association 34* (1958):903-908; Alfred E. Harper, "Origins of Recommended Dietary Allowances--An Historical Overview," *American Journal of Clinical Nutrition 41* (1985):140-148.

24. See Donald F. Miller and Leroy Voris, "Chronologic Changes in the Recommended Dietary Allowances," *Journal of American Dietetics Association 54* (1969):109-117.

25. National Research Council, *Recommended Dietary Allowances*, 10th ed. (Washington, DC: National Academy of Sciences, 1989).

26. See Joan D. Gussow and Paul R. Thomas, *The Nutrition Debate: Sorting Out Some Answers* (Palo Alto: Bull Publishing Co., 1986), 18-61; "Minisymposium: Behind and Beyond the Recommended Dietary Allowances," Irwin H. Rosenberg, ed., *American Journal of Clinical Nutrition 41* (1985):139-170.

27. Mary M. Hill and Linda E. Cleveland, "Food Guides--Their Development and Use," *Nutrition Program News* (Washington, DC: U.S. Department of Agriculture, July-October 1970).

28. Office of Defense Health and Welfare Services, in *U.S. Needs Us Strong* (Washington, DC, 1942); Bureau of Home Economics, *When You Eat Out: Food for Freedom* (Washington, DC: August, 1942).

29. War Food Administration, Nutrition, and Food Conservation Branch publication, *National Wartime Nutrition Guide*, NFC-4 (Washington, DC: USDA, July, 1943).

30. Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, *Family Food Plans for Good Nutrition*, AWI-78 (Washington, DC: USDA, December, 1943).

31. Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, *National Food Guide*, Leaflet No. 288, formerly AIS-53 (Washington, DC: USDA, August, 1946).

32. Bureau of Human Nutrition and Home Economics in cooperation with Farm Security Administration, *Food for Growth: Food for Freedom*, AWI-1 (Washington, DC: U.S. Department of Agriculture, rev. October, 1946).

33. Hill and Cleveland, *Guides--Their Development and Use*, 2.

34. *Ibid.*, 3.

35. Agricultural Research Service, *Essentials of an Adequate Diet . . . Facts for Nutrition Programs*, Home Economics Research Report No. 3, AIB-160 (Washington, DC: USDA, November, 1956).

36. Institute of Home Economics, Agricultural Research Service, *Food for Fitness: A Daily Food Guide*, Leaflet No. 424 (Washington, DC: USDA, March, 1958).

37. Eloise Cofer, Evelyn Grossman, and Faith Clark, *Family Food Plans and Food Costs*, Home Economics Research Report No. 20 (Washington, DC: USDA, November, 1962).

38. CBS television, "Hunger in America," 1967.

39. Citizens' Board of Inquiry into Hunger and Malnutrition in the United States, *Hunger U.S.A. Revisited* (New York: Field Foundation, 1972), 4.

40. George McGovern, "Letter of Transmittal," *Final Report of the Select Committee on Nutrition and Human Needs* (Washington, DC: U.S. Government Printing Office, December, 1977), 1.

41. White House Conference on Food, Nutrition, and Health, Final Report (Washington, DC: U.S. Government Printing Office, 1970).

42. Irvine H. Page, Fredrick J. Stare, A.C. Corcoran, Herbert Pollack, and Charles F. Wilkinson, "Atherosclerosis and the Fat Content of the Diet," *Circulation 16* (1957):163-178.

43. Central Committee for Medical and Community Program of the American Heart Association, "Dietary Fat and its Relation to Heart Attacks and Strokes," *Circulation 23* (1961):133-136.

44. Inter-Society Commission for Heart Disease Resources, "Primary Prevention of the Atherosclerotic Diseases," *Circulation 42* (1970):A55-A98.

45. James E. Austin and Christopher Hitt, *Nutrition Intervention in the United States: Cases and Concepts* (Cambridge, MA: Ballinger, 1979), 331.

46. Select Committee, *Final Report,* 17-20.

47. Select Committee on Nutrition and Human Needs, United States Senate, *Dietary Goals for the United States* (Washington, DC: U.S. Government Printing Office, February, 1977), 1.

48. *Ibid.*, 12-13.

49. Select Committee on Nutrition and Human Needs, United States Senate, *Dietary Goals for the United States--Supplemental Views* (Washington, DC: U.S. Government Printing Office, November, 1977).

50. William J. Broad, "The Ever-Shifting *Dietary Goals,*" *Science 204* (1979):1177.

51. "Statement by D. Mark Hegsted," Select Committee, *Dietary Goals,* 3.

52. A. Stewart Truswell, "Evolution of Dietary Recommendations, Goals, and Guidelines," *American Journal of Clinical Nutrition 45* (1987):1060-1072. Also see Alfred E. Harper, "Dietary Goals--A Skeptical View," *American Journal of Clinical Nutrition 31* (1978):310-321.

53. Select Committee, *Supplemental Views,* 677.

54. Broad, "The Ever-Shifting *Dietary Goals,*" 1177.

55. Select Committee on Nutrition and Human Needs, United States Senate, *Dietary Goals for the United States,* 2nd ed. (Washington, DC: U.S. Government Printing Office, December, 1977), 4.

56. William J. Broad, "NIH Deals Gingerly with Diet-Disease Link," *Science 204* (1979):1175-1178.

57. "Report of the Task Force on the Evidence Relating Six Dietary Factors to the Nation's Health," *American Journal of Clinical Nutrition 32* (1979):2627.

58. American Heart Association Committee on Nutrition, "Diet and Coronary Heart Disease," *Circulation 58* (1978):762A-765A.

59. Arthur C. Upton, "Statement on Diet, Nutrition, and Cancer," *Hearings of the Subcommittee on Nutrition,* Senate Committee on Agriculture, Nutrition, and Forestry, 2 October 1979, GPO 56-1510 (Washington, DC: U.S. Government Printing Office, 1979).

60. U.S. Department of Health, Education, and Welfare. *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention,* DHEW (PHS) 79-55071 (Washington, DC: U.S. Government Printing Office, 1979), vii. The first public health revolution was the fight against infectious diseases.

61. The significance of a numerical target (for example, 30 percent of calories from fat) is the dietary changes it requires. To meet this goal, consumers must reduce

intake of beef, dairy products, and processed foods, in addition to added fats and oils. A more general statement to "eat less fat" leaves consumers free to set their own standards for comparison.

62. Tom Monte, "The U.S. Finally Takes a Stand on Diet," *Nutrition Action 6 (9),* (1979):4.

63. Isabel D. Wolf and Betty B. Peterkin, "Dietary Guidelines: The USDA Perspective," *Food Technology 38 (7),* (1984): 80-86.

64. Science and Education Administration, *Food: The Hassle-Free Guide to a Better Diet,* Home and Garden Bulletin 228 (Washington, DC: U.S. Department of Agriculture, 1979), 3.

65. "ADA to Publish Food II Magazine as Separate Booklets," *CNI Weekly Report 12* (1982):1-2.

66. *Food 2: A Dieter's Guide,* and *Food 3: Eating the Moderate Fat and Cholesterol Way* (Chicago: American Dietetic Association, 1982).

67. Daniel S. Greenberg, "Nutrition: A Long Wait for a Little Advice," *Science 302* (1980):535-536.

68. U.S. Department of Agriculture and U.S. Department of Health, Education, and Welfare, *Nutrition and Your Health: Dietary Guidelines for Americans,*" Home and Garden Bulletin No. 232 (Washington, DC: U.S. Government Printing Office, February, 1980).

69. "USDA and HEW Unveil Guidelines for Healthy Eating," *Community Nutrition Institute Weekly Report X* (1980):1-2.

70. Sanford A. Miller and Marilyn G. Stephenson, "Scientific and Public Health Rationale for the Dietary Guidelines for Americans," *American Journal of Clinical Nutrition 42* (1985):739-745.

71. Greenberg, "Nutrition--A Long Wait," 536. The National Institutes of Health is located in Bethesda, Maryland.

72. National Research Council, "Toward Healthful Diets," (Washington, DC: National Academy of Sciences, 1980).

73. See Jane E. Brody, "Sharp Departure: U.S. Study Sees No Cause for Limit on Cholesterol," *International Herald Tribune,* May 29, 1980, 7.

74. Philip Handler, "Statement on Dietary Guidelines for Americans," U.S. Senate Committee on Appropriations, Special Hearing, 96th Congress, 2nd Session (Washington, DC: July 16, 1980), 63-65. Also see Nicholas Wade, "Food Board's Fat Report Hits Fire," *Science 209* (1980): 248-250.

75. U.S. Senate Committee on Appropriations, Agriculture, Rural Development, and Related Agencies Appropriations Bill, 1981, Report 96-1030, 96th Congress, Second Session (Washington, DC: November 20, 1980), 38.

76. "USDA Readies to Carve Up the Dietary Guidelines," *Nutrition Action 10* (1983):3-4.

77. Ronald Schwartz, "The Big Fuss Over Good Food," *The New York Times,* April 24, 1983.

78. U.S. Department of Agriculture and U.S. Department of Health and Human Services, *"Nutrition and Your Health: Dietary Guidelines for Americans,"* 2nd ed., Home and Garden Bulletin No. 232 (Washington, DC: U.S. Government Printing Office, 1985). "Maintain ideal weight" became "maintain desirable weight" and "alcohol" became "alcoholic beverages."

79. Human Nutrition Information Service, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 1990, to the Secretary of Agriculture and the Secretary of Health and Human Services* (Washington, D.C.: USDA, May 14, 1990), 21.

80. *Ibid.*, 10.

81. National Research Council, Food and Nutrition Board, *Diet, Nutrition, and*

Cancer (Washington, DC: National Academy Press, 1983).

82. "Lawmakers Ask Probe of Diet-Cancer Report," *Community Nutrition Institute Weekly Report 12 (4),* (1982):6.

83. Associated Press, "Diet Report Tied to Drop in Meat Price," *San Francisco Chronicle* June 24, 1982, 6.

84. Thomas M. Maugh, "Cancer Is Not Inevitable," *Science 217* (1982):36-37. Also see "USDA, HHS Disagree on Diet-Cancer Report, *Community Nutrition Institute Weekly Report 13 (22),* (1983):1.

85. Albert I. Mendeloff, "Appraisal of Diet, Nutrition, and Cancer," *American Journal of Clinical Nutrition 37* (1983): 495-498. Also see: Michael W. Pariza, "A Perspective on Diet, Nutrition, and Cancer," *JAMA 251* (1984):1455-1458.

86. American Cancer Society Special Report, "Nutrition and Cancer: Cause and Prevention," *CA-A Cancer Journal for Clinicians 34 (2),* (1984):121-126.

87. Peter Greenwald and Edward J. Sondik, eds., *Cancer Control Objectives for the Nation, 1985-2000* (Bethesda, MD: National Cancer Institute, 1986).

88. Ritva Butrum, Carolyn K. Clifford, and Elaine Lanza, "NCI Dietary Guidelines: Rationale," *American Journal of Clinical Nutrition 48* (1988):888-895.

89. American Heart Association Nutrition Committee, "Rationale of the Diet-Heart Statement of the American Heart Association," *Circulation 65 (4), 1982:* 839A- 854A.

90. American Heart Association, "Recommendations for Treatment of Hyperlipidemia in Adults," *Circulation 69 (5),* (1984): 1067A-1090A.

91. American Heart Association Position Statement, "Dietary Guidelines for Healthy American Adults," *Circulation 74* (1986):1465A-1468A.

92. American Medical Association Council on Scientific Affairs, "Dietary and Pharmacologic Therapy for the Lipid Risk Factors," *JAMA 250* (1983):1873-1879.

93. Consensus Conference, "Lowering Blood Cholesterol to Prevent Heart Disease," *JAMA 253* (1985):2080-2086.

94. Charles Marwick, "A Nation of Jack Sprats? Cholesterol Program to Stress Dietary Changes," *JAMA 256* (1986):2775-2776.

95. Beverly Merz, "Low-Fat Diet May Be Imprudent for Some, Say Opponents of Population-Based Cholesterol Control," *JAMA 256* (1986):2779-2780.

96. "Report of the National Cholesterol Education Program Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults," *Archives of Internal Medicine 148* (1988):36-69.

97. American Diabetes Association, "Principles of Nutrition and Dietary Recommendations for Individuals with Diabetes Mellitus: 1979," *Diabetes 28* (1979): 1027-1030; and "Nutritional Recommendations and Principles for Individuals with Diabetes Mellitus: 1986," *Diabetes Care 10* (1987):126-132.

98. "The 1984 Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure," *Archives of Internal Medicine 144* (1984):1045-1057. The 1988 update is in *Archives of Internal Medicine 148* (1988):36-69.

99. National Research Council, *Diet, Nutrition, and Cancer,* 1-16.

100. See Robert Pear, "Lower Nutrient Levels Proposed in Draft Report on American Diet," *The New York Times,* September 23, 1985, 1.

101. Robert Pear, "Impasse Delays Proposal to Cut Diet Guidelines," *The New York Times,* October 8, 1985, 1. Also see Eliot Marshall, "The Academy Kills a Nutrition Report," *Science 230* (1985):420-421.

102. National Research Council, *Recommended Dietary Allowances,* 10th ed., 1-9.

103. National Research Council, Board on Agriculture, *Designing Foods: Animal Product Options in the Marketplace* (Washington, DC: National Academy of Science, 1988).

104. Public Health Service, *The Surgeon General's Report on Nutrition and Health* (Washington, DC: Government Printing Office, 1988).

105. National Research Council Food and Nutrition Board, *Diet and Health: Implications for Reducing Chronic Disease Risk* (Washington, DC: National Academy of Sciences, 1989).

106. Michael F. Jacobson, *Press Statement* (Washington, DC: Center for Science in the Public Interest, July 27, 1988).

107. See "New Product Parade Continues," (*Prepared Foods: New Product Annual*, 1986), 12-20; *Trends: Consumer Attitudes and the Supermarket* (Washington, DC: Food Marketing Institute, 1988).

108. "Surgeon General's Dietary Recommendations Support Need for Health Messages on Foods," (Washington, DC: The National Food Processors' Association, July 27, 1988).

109. Philip J. Hilts, "U.S. Details Its Mandatory Food Labeling Plans," *The New York Times*, July 13, 1990, B7.

110. Economic Research Service. *Food Consumption, Prices, and Expenditures, 1966-1987*. Statistical Bulletin No. 773 (Washington, D.C.: USDA, January, 1989), 47.

111. J. Michael McGinnis and Marion Nestle, "The Surgeon General's Report on Nutrition and Health: Policy Implications and Implementation Strategies," *American Journal of Clinical Nutrition 49* (1989):23-28.

Authors

Marion Nestle, Ph.D., M.P.H., is Professor and Chair of the Department of Nutrition, Food and Hotel Management at New York University. Her degrees include a doctorate in molecular biology and a master's in public health nutrition from the University of California at Berkeley. She held the position of Associate Dean for Human Biology Programs at the University of California School of Medicine in San Francisco, where she directed the John Tung/American Cancer Society Clinical Nutrition Education Center, a training program for health professionals. From 1986 to 1988, she was Staff Director for Nutrition Policy in the Office of Disease Prevention and Health Promotion at the Department of Health and Human Services in Washington, D.C. In this position, she served as Managing Editor of the 1988 Surgeon General's Report of Nutrition and Health. Dr. Nestle is the author of *Nutrition in Clinical Practice*, a textbook for health professionals, and numerous scholarly articles.

Donna Porter, Ph.D., R.D., is Specialist in Life Sciences at the Congressional Research Service of the Library of Congress in Washington, D.C. She took her Ph.D. in human nutrition from Ohio State University. Prior to joining the Library, she was a Fellow at the National Nutrition Consortium in Washington and a Congressional Science Fellow assigned to the Science Policy Research Division of the Congressional Research Service. Dr. Porter is currently on sabbatical from the Library of Congress, and is Project Director of the Institute of Medicine's report on Nutrition Components of Food Labeling, released in September, 1990.

Announcements

"Russian America: The Forgotten Frontier"

A major exhibit undertaken by the Anchorage Museum of History and Art and the Washington State Historical Society Museum, "Russian America" is a record of Russian exploration in North America during the eighteenth and nineteenth centuries from the Bering Straits to Baja California. The special exhibit will run from November 18, 1990 through February 10, 1991, in Anchorage. Contact Curator Barbara Sweetland Smith at (907) 343-4326 for further information.

"Crossroads of Continents: Cultures of Siberia and Alaska"

The largest travelling exhibit ever developed by the Smithsonian Institution, "Crossroads of Contintents" is a superb collection of more than 600 artifacts drawn from the Smithsonian's holdings and the Soviet Academy of Sciences. This exhibit is scheduled from October 21, 1990 through February 24, 1991, at the Gene Autry Western Heritage Museum in Los Angeles. Call (213) 667-2000 for details.

Medical Museums Association Annual Meeting

The annual meeting of the Medical Museums Association (MeMA) is scheduled for May 1, 1991, in the Allen Memorial Medical Library, home of the Dittrick Museum, in Cleveland. A luncheon with the Association of Librarians in the History of the Health Sciences is planned. A three-hour workshop is being organized to focus on "Potential Health Hazards in Medical Collections." Further information can be obtained from James Edmonson, President, at (316) 368-3648.

"Black Achievers in Science"

Chicago's Museum of Science and Industry has organized a travelling exhibit which celebrates the achievements of sixteen distinguished black American scientists. The exhibit is designed to inspire young people to choose careers in math, science and technology. A teachers' guide is provided. Call Robert at Aztec in Washington, D.C., (202) 372-1171, for specific information. The exhibit will travel to the following locations:

Museum of Science in Boston, from October 13, 1990 to January 6, 1991; Museum of History and Science in Louisville, from January 26 to April 21, 1991; and the Cumberland Science Museum in Nashville, from May 11 to August 4, 1991.

Credits

American Heart Association
Alameda County Chapter

Center for Attitudinal Healing

The CORE Program

Gay Men's Health Crisis (GMHC)

David Lance Goines

William H. Helfand

National Library of Medicine

Philadelphia Museum of Art
The William H. Helfand Collection

US Department of Agriculture

Cover illustration: Siflis. *Spanish artist Ramon Casas used a woman with a snake climbing up her back to publicize a sanitarium in Barcelona for patients with venereal disease. (Courtesy of Philadelphia Museum of Art: The William H. Helfand Collection.)*

Produced for the Department of Medical Humanities, Southern Illinois University School of Medicine by the Division of Biomedical Communications, Illustration Don Biggerstaff, Director of Biomedical Communications

Debra Vaninger, Design